EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	21	"6008231"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 14:09
L2	2	("6008231").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/05/22 14:21
L3	2	("6919344").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/05/22 14:23
L4	2	("0675110").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/05/22 14:23
L5	22	"0675110"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 14:25
L6	2	("6232327").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/05/22 14:26
L7	0	PC0147913T	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 14:26
L8	2	"6407104"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 14:31

EAST Search History

L9	44	"0122954"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 14:32
L10	2	("0122954").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/05/22 14:58
L11	46	"5561149"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 14:58
L12	46	"5561149"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 14:58
L13	6	(("5561149") or ("6251923") or ("6613794")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/05/22 15:38
L14	0	indol-3-glycoxylamide?	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 15:38
L15	0	indol and glycoxylamide?	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 15:38
L16	0	indol and ?glycoxylamide?	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 15:39

EAST Search History

L17	1	indol and ?glyoxylamide?	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	OFF	2006/05/22 15:39

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NEWS 7	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS 8	MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 9	MAR 22	EMBASE is now updated on a daily basis
NEWS 10	APR 03	New IPC 8 fields and IPC thesaurus added to PATDPAFULL
NEWS 11	APR 03	Bibliographic data updates resume; new IPC 8 fields and IPC thesaurus added in PCTFULL
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L1      245717 RHINITIS

=> s ?indolylgly?
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L3           17 L1 AND L2

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L4 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:216863 CAPLUS
DOCUMENT NUMBER: 140:247052
TITLE: Treatment nonallergic **rhinitis** by selective phosphodiesterase 4 inhibitors
INVENTOR(S): Rundfeldt, Chris; Kuss, Hildegard; Hofgen, Norbert
PATENT ASSIGNEE(S): Elbion A.-G., Germany
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10241407	A1	20040318	DE 2002-10241407	20020906
US 2004116501	A1	20040617	US 2003-654365	20030903
CA 2497374	AA	20040318	CA 2003-2497374	20030905
WO 2004022041	A2	20040318	WO 2003-EP9895	20030905
WO 2004022041	A3	20040506		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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AU 2003271586	A1	20040329	AU 2003-271586	20030905
EP 1534272	A2	20050601	EP 2003-753390	20030905
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003014031	A	20050705	BR 2003-14031	20030905
CN 1678307	A	20051005	CN 2003-821089	20030905
JP 2005539058	T2	20051222	JP 2004-533499	20030905
ZA 2005001582	A	20050909	ZA 2005-1582	20050222
NO 2005001468	A	20050603	NO 2005-1468	20050321

PRIORITY APPLN. INFO.: DE 2002-10241407 A 20020906
WO 2003-EP9895 W 20030905

OTHER SOURCE(S): MARPAT 140:247052
AB The invention discloses the use of **hydroxyindolylglyoxylic** acid amides as inhibitors of the phosphodiesterase 4 for the treatment of nonallergic **rhinitis**.

L4 ANSWER 2 OF 15 IFIPAT COPYRIGHT 2006 IFI on STN DUPLICATE 1
AN 10609278 IFIPAT;IFIUDB;IFICDB
TITLE: TREATMENT OF NONALLERGIC **RHINITIS** BY SELECTIVE PHOSPHODIESTERASE 4 INHIBITORS; N-(3,5-DICHLOROPYRID-4-YL)-(1-(4-FLUOROBENZYL)-5-HYDROXYINDOL-3 -YL)GLYOXYLAMIDE (AWD 12-28
INVENTOR(S): Hofgen; Norbert, Medingen, DE
Kuss; Hildegard, Dresden, DE

Rundfeldt; Chris, Coswig, DE
PATENT ASSIGNEE(S): Unassigned
PATENT ASSIGNEE PROBABLE: Elbion GmbH DE (Probable)
AGENT: FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 2004116501	A1	20040617
APPLICATION INFORMATION:	US 2003-654365		20030903

	NUMBER	DATE
PRIORITY APPLN. INFO.:	DE 2002-102414076	20020906
FAMILY INFORMATION:	US 2004116501	20040617

DOCUMENT TYPE: Utility
Patent Application - First Publication
FILE SEGMENT: CHEMICAL
APPLICATION

NUMBER OF CLAIMS: 4
AB The invention relates to the use of **hydroxyindolylglyoxylamides** as inhibitors of phosphodiesterase 4 for the treatment of nonallergic **rhinitis**.
CLMN 4

L4 ANSWER 3 OF 15 PCTFULL COPYRIGHT 2006 Univentio on STN
ACCESSION NUMBER: 1998009946 PCTFULL ED 20020514
TITLE (ENGLISH): N-SUBSTITUTED INDOL-3-GLYOXYLAMID WITH ANTIASTHMATIC, ANTIALLERGIC AND IMMUNOSUPPRESSIVE/IMMUNOMODULATING EFFECT
TITLE (FRENCH): INDOL-3-GLYOXYLAMIDES SUBSTITUES EN N AUX PROPRIETES ANTIASTHMATIQUES, ANTIALLERGIQUES ET IMMUNOSUPPRESSEURS/IMMUNOMODULATRICES
INVENTOR(S): LEBAUT, Guillaume;
MENCIU, Cecilia;
KUTSCHER, Bernhard;
EMIG, Peter;
SZELENYI, Stefan;
BRUNE, Kay
PATENT ASSIGNEE(S): ASTA MEDICA AKTIENGESELLSCHAFT
LANGUAGE OF PUBL.: German
DOCUMENT TYPE: Patent
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9809946	A1	19980312

DESIGNATED STATES
W: AU BR CN CZ EE HU IL JP KR LT LV MX NO NZ PL RU SG SK TR UA AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

APPLICATION INFO.:	WO 1997-EP4474	A	19970816
PRIORITY INFO.:	DE 1996-196 36 150.8		19960906

ABEN New N-substituted indol-2-glyoxylamids, the production method and the pharmaceutical
application thereof are disclosed. The inventive compounds appear to have antiasthmatic,
hypoallergenic and immunosuppresive/immunomodulating properties.
ABFR La presente invention porte sur de nouveaux indol-3-glyoxylamides substitues en N sur le
procede de production et sur les applications pharmaceutiques. Les composes selon l'invention ont
des proprietes antiasthmatiques, antiallergiques et immunosuppresseurs/immunomodulatrices.

L4 ANSWER 4 OF 15 USPATFULL on STN DUPLICATE 2
ACCESSION NUMBER: 2003:294874 USPATFULL
TITLE: N-substituted indole-3-glyoxylamides having anti-asthmatic, antiallergic and immunosuppressant/immuno-modulating action
INVENTOR(S): Lebaut, Guillaume, Saint Sebastien/Loire, FRANCE
Menciu, Cecilia, Nantes, FRANCE
Kutscher, Bernhard, Maintal, GERMANY, FEDERAL REPUBLIC OF
Emig, Peter, Bruchkobel, GERMANY, FEDERAL REPUBLIC OF
Szelenyi, Stefan, Schwaig, GERMANY, FEDERAL REPUBLIC OF
Brune, Kay, Marloffstein/Rathsberg, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003207892	A1	20031106
	US 6919344	B2	20050719
APPLICATION INFO.:	US 2003-402931	A1	20030401 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-58836, filed on 30 Jan 2002, ABANDONED Division of Ser. No. US 1999-409263, filed on 30 Sep 1999, GRANTED, Pat. No. US 6344467 Division of Ser. No. US 1997-925326, filed on 8 Sep 1997, GRANTED, Pat. No. US 6008231

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19636150	19960906

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PILLSBURY WINTHROP, LLP, P.O. BOX 10500, MCLEAN, VA, 22102
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 811
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to novel N-substituted indole-3-glyoxylamides, to processes for their preparation and to their pharmaceutical use. The compounds have antiasthmatic, antiallergic and immuno-suppressant/immunomodulating actions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 5 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2004:335666 USPATFULL
TITLE: 5-hydroxyindoles with N-oxide groups and the use thereof as therapeutic agents
INVENTOR(S): Hofgen, Nobert, Ottendorf-Okilla, GERMANY, FEDERAL REPUBLIC OF
Kuss, Hildegard, Dresden, GERMANY, FEDERAL REPUBLIC OF
Steinike, Karin, Radebeul, GERMANY, FEDERAL REPUBLIC OF
Egerland, Ute, Radebeul, GERMANY, FEDERAL REPUBLIC OF
Rundfeldt, Chris, Coswig, GERMANY, FEDERAL REPUBLIC OF
Pfeifer, Thomas, Radebeul, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004266760	A1	20041230
APPLICATION INFO.:	US 2004-824342	A1	20040414 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2003-10318609	20030424

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
LINE COUNT: 850
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to substituted 5-hydroxyindoles with N-oxide groups, processes for their preparation, pharmaceutical preparations which comprise these compounds, and the pharmaceutical use of these compounds, which are inhibitors of phosphodiesterase 4, as active ingredients for the treatment of disorders which can be influenced by inhibition of phosphodiesterase 4 activity in particular in immunocompetent cells (e.g. macrophages and lymphocytes) by the compounds of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 6 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2004:307967 USPATFULL
TITLE: 4-,6- or 7-hydroxyindoles with N-oxide groups and the use thereof as therapeutic agents
INVENTOR(S): Hofgen, Nobert, Ottendorf-Okrilla, GERMANY, FEDERAL REPUBLIC OF
Kuss, Hildegard, Dresden, GERMANY, FEDERAL REPUBLIC OF
Steinike, Karin, Radebeul, GERMANY, FEDERAL REPUBLIC OF
Egerland, Ute, Radebeul, GERMANY, FEDERAL REPUBLIC OF
Rundfeldt, Chris, Coswig, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004242643	A1	20041202
APPLICATION INFO.:	US 2004-825862	A1	20040416 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2003-10318611	20030424

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 870
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to substituted 4-,6- or 7-hydroxyindoles with N-oxide groups, process for their preparation, pharmaceutical preparations which comprise these compounds, and the pharmaceutical use of these compounds, which are inhibitors of phosphodiesterase 4, as active ingredients for the treatment of disorders which can be influenced by inhibition of phosphodiesterase 4 activity in particular in immunocompetent cells (e.g. macrophages and lymphocytes) by the compounds of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 7 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2004:286803 USPATFULL
TITLE: 7-azaindoles and the use thereof as therapeutic agents
INVENTOR(S): Hofgen, Nobert, Ottendorf-Okrilla, GERMANY, FEDERAL REPUBLIC OF
Kuss, Hildegard, Dresden, GERMANY, FEDERAL REPUBLIC OF
Olbrich, Matthias, Moritzburg, GERMANY, FEDERAL

REPUBLIC OF
Egerland, Ute, Radebeul, GERMANY, FEDERAL REPUBLIC OF
Rundfeldt, Chris, Coswig, GERMANY, FEDERAL REPUBLIC OF
Steinike, Karin, Radebul, GERMANY, FEDERAL REPUBLIC OF
Schindler, Rudolf, Dresden, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004224971	A1	20041111
APPLICATION INFO.:	US 2004-826136	A1	20040416 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2003-10318610	20030424

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
LINE COUNT: 1093
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to substituted 7-azaindoles, process for their preparation, pharmaceutical preparations which comprise these compounds, and the pharmaceutical use of these compounds, which are inhibitors of phosphodiesterase 4, as active ingredients for the treatment of disorders which can be influenced by inhibition of phosphodiesterase 4 activity in particular in immunocompetent cells (e.g. macrophages and lymphocytes) by the compounds of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 8 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2004:190985 USPATFULL
TITLE: Novel hydroxyindoles, their use as inhibitors of phosphodiesterase 4, and processes for preparing them
INVENTOR(S): Hofgen, Norbert, Ottendorf-Okrilla, GERMANY, FEDERAL REPUBLIC OF
Kuss, Hildegard, Dresden, GERMANY, FEDERAL REPUBLIC OF
Egerland, Ute, Radebeul, GERMANY, FEDERAL REPUBLIC OF
Rundfeldt, Chris, Coswig, GERMANY, FEDERAL REPUBLIC OF
Hartenhauer, Helge, Dresden, GERMANY, FEDERAL REPUBLIC OF
Gasparic, Antje, Coswig, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004147759	A1	20040729
APPLICATION INFO.:	US 2003-714568	A1	20031113 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2002-10253426	20021115

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
LINE COUNT: 1250
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to substituted 4- or/and 7-hydroxyindoles, to processes for preparing them, to pharmaceutical preparations which

comprise these compounds and to the pharmaceutical use of these compounds, which are inhibitors of phosphodiesterase 4, as active compounds for treating diseases which can be influenced by using the compounds according to the invention to inhibit phosphodiesterase 4 activity in immunocompetent cells (e.g. macrophages and lymphocytes).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 9 OF 15 USPATFULL on STN

ACCESSION NUMBER:	2003:31141 USPATFULL
TITLE:	United states patent office
INVENTOR(S):	Nickel, Bernd, Muhltal, GERMANY, FEDERAL REPUBLIC OF Szelenyi, Istvan, Schwaig, GERMANY, FEDERAL REPUBLIC OF Schmidt, Jurgen, Uhldingen Muhlhofen, GERMANY, FEDERAL REPUBLIC OF Emig, Peter, Bruchkobel, GERMANY, FEDERAL REPUBLIC OF Reichert, Dietmar, Eschau, GERMANY, FEDERAL REPUBLIC OF Gunther, Eckhard, Maintal, GERMANY, FEDERAL REPUBLIC OF Brune, Kay, Marloffstein, GERMANY, FEDERAL REPUBLIC OF Le Baut, Guillaume, Saint Sebastian/Loire, FRANCE
PATENT ASSIGNEE(S):	ASTA Medica Aktiengesellschaft (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003023093	A1	20030130	
APPLICATION INFO.:	US 2001-810604	A1	20010319	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19814838	19980402

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	PILLSBURY WINTHROP, LLP, P.O. BOX 10500, MCLEAN, VA, 22102
NUMBER OF CLAIMS:	10
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	2 Drawing Page(s)
LINE COUNT:	1036

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of N-substituted indole-3-glyoxylamides of the general formula I as antitumor agents ##STR1##

and to a pharmaceutical composition having antitumor action, characterized in that it contains at least one of the compounds of the general formula 1, if appropriate also in the form of the physiologically tolerable acid addition salts or N-oxides. Furthermore, the invention also includes antitumor agents comprising as active compound one or more N-substituted indole-3-glyoxylamides according to the general formula 1 and, if appropriate, their physiologically tolerable acid addition salts and, if possible, N-oxides and a pharmaceutically utilizable carrier and/or diluent or auxiliary substance in the form of tablets, coated tablets, capsules, solutions for infusion or ampoules, suppositories, patches, powder preparations which can be employed by inhalation, suspensions, creams and ointments.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 10 OF 15 USPATFULL on STN

ACCESSION NUMBER:	2002:288155 USPATFULL
TITLE:	N-substituted indole-3glyoxylamides having anti-asthmatic, antiallergic and immunosuppressant/immuno-modulating action
INVENTOR(S):	Lebaut, Guillaume, Saint Sebastien/Loire, FRANCE Menciu, Cecilia, Nantes, FRANCE

Kutscher, Bernhard, Maintal, GERMANY, FEDERAL REPUBLIC OF
Emig, Peter, Bruchkobel, GERMANY, FEDERAL REPUBLIC OF
Szelenyi, Stefan, Schwaig, GERMANY, FEDERAL REPUBLIC OF
Brune, Kay, Marloffstein/Rathsberg, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002161025	A1	20021031
APPLICATION INFO.:	US 2002-58836	A1	20020130 (10)

RELATED APPLN. INFO.: Division of Ser. No. US 1999-409263, filed on 30 Sep 1999, GRANTED, Pat. No. US 6344467 Division of Ser. No. US 1997-925326, filed on 8 Sep 1997, GRANTED, Pat. No. US 6008231

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19636150	19960906

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PILLSBURY WINTHROP, LLP, P.O. BOX 10500, MCLEAN, VA, 22102
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 833
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to novel N-substituted indole-3-glyoxylamides, to processes for their preparation and to their pharmaceutical use. The compounds have antiasthmatic, antiallergic and immunosuppressant/immunomodulating actions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 11 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2002:346922 USPATFULL
TITLE: Inhibitors of phospholipase enzymes
INVENTOR(S): Seehra, Jasbir S., Lexington, MA, United States
McKew, John C., Arlington, MA, United States
Lovering, Frank, Acton, MA, United States
Bemis, Jean E., Arlington, MA, United States
Xiang, YiBin, Acton, MA, United States
Chen, Lihren, Cambridge, MA, United States
Knopf, John L., Acton, MA, United States
PATENT ASSIGNEE(S): Genetics Institute, LLC, Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6500853	B1	20021231
APPLICATION INFO.:	US 2000-686616		20001011 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-256062, filed on 24 Feb 1999, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-113674P	19980228 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Chang, Ceila
ASSISTANT EXAMINER: Wright, Sonya
LEGAL REPRESENTATIVE: Mazzarese, Joseph M.
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 4414
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention concerns compounds and pharmaceutical compositions useful for treating or preventing inflammatory conditions in a mammal, the methods comprising administration of novel pharmaceutically useful compounds of the general formulae: ##STR1##

or pharmaceutically acceptable salts thereof, wherein R.sub.1-R.sub.5 are as defined in the specification.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 12 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2002:24295 USPATFULL
TITLE: N-substituted indole-3-glyoxylamides having anti-asthmatic, antiallergic and immunosuppressant/immuno-modulating action
INVENTOR(S): Lebaut, Guillaume, Saint Sebastien/Loire, FRANCE
Menciu, Cecilia, Nantes, FRANCE
Kutscher, Bernhard, Maintal, GERMANY, FEDERAL REPUBLIC OF
Emig, Peter, Bruchkobel, GERMANY, FEDERAL REPUBLIC OF
Szelenyi, Stefan, Schwaig, GERMANY, FEDERAL REPUBLIC OF
Brune, Kay, Marloffstein/Rathsberg, GERMANY, FEDERAL REPUBLIC OF
PATENT ASSIGNEE(S): ASTA Medica AG, Frankfurt am Main, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6344467	B1	20020205
APPLICATION INFO.:	US 1999-409263		19990930 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-925326, filed on 8 Sep 1997, now patented, Pat. No. US 6008231, issued on 30 Jun 1999

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19636150	19960906

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: McKane, Joseph K.
ASSISTANT EXAMINER: D'Souza, Andrea
LEGAL REPRESENTATIVE: Pillsbury Winthrop LLP
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 772
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to novel N-substituted indole-3-glyoxylamides, to processes for their preparation and to their pharmaceutical use. The compounds have antiasthmatic, antiallergic and immunosuppressant/immunomodulating actions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 13 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2001:71562 USPATFULL
TITLE: Indolyl-3-glyoxylic acid derivatives having antitumor action
INVENTOR(S): Nickel, Bernd, Muhltal, Germany, Federal Republic of
Szelenyi, Istvan, Schwaig, Germany, Federal Republic of
Schmidt, Jurgen, Uhldingen Muhlhofen, Germany, Federal

Republic of
Emig, Peter, Bruchkobel, Germany, Federal Republic of
Reichert, Dietmar, Eschau, Germany, Federal Republic of
Gunther, Eckhard, Maintal, Germany, Federal Republic of
Brune, Kay, Marloffstein, Germany, Federal Republic of
PATENT ASSIGNEE(S): Asta Medica Aktiengesellschaft, Dresden, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6232327	B1	20010515
APPLICATION INFO.:	US 1999-285058		19990402 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19814838	19980402

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rotman, Alan L.
ASSISTANT EXAMINER: Desai, Rita
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 957
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of N-substituted indole-3-glyoxylamides of the general formula I as antitumor agents ##STR1##

and to a pharmaceutical composition having antitumor action, characterized in that it contains at least one of the compounds of the general formula 1, if appropriate also in the form of the physiologically tolerable acid addition salts or N-oxides. Furthermore, the invention also includes antitumor agents comprising as active compound one or more N-substituted indole-3-glyoxylamides according to the general formula 1 and, if appropriate, their physiologically tolerable acid addition salts and, if possible, N-oxides and a pharmaceutically utilizable carrier and/or diluent or auxiliary substance in the form of tablets, coated tablets, capsules, solutions for infusion or ampoules, suppositories, patches, powder preparations which can be employed by inhalation, suspensions, creams and ointments.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 14 OF 15 USPATFULL on STN
ACCESSION NUMBER: 1999:170623 USPATFULL
TITLE: N-substituted indole-3 glyoxylamides having anti-asthmatic antiallergic and immunosuppressant/immuno-modulating action
INVENTOR(S): Lebaut, Guillaume, Saint Sebastien/Loire, France
Menciu, Cecilia, Nantes, France
Kutscher, Bernhard, Maintal, Germany, Federal Republic of
Emig, Peter, Bruchkobel, Germany, Federal Republic of
Szelenyi, Stefan, Schwaig, Germany, Federal Republic of
Brune, Kay, Marloffstein/Rathsberg, Germany, Federal Republic of
PATENT ASSIGNEE(S): ASTA Medica Aktiengesellschgt, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6008231		19991228
APPLICATION INFO.:	US 1997-925326		19970908 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19636150	19960906

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Richter, Johann
ASSISTANT EXAMINER: Oswecki, Jane C.
LEGAL REPRESENTATIVE: Pillsbury Madison & Sutro
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
LINE COUNT: 942
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to novel N-substituted indole-3-glyoxylamides, to processes for their preparation and to their pharmaceutical use. The compounds have antiasthmatic, antiallergic and immuno-suppressant/immunomodulating actions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 15 OF 15 USPAT2 on STN
ACCESSION NUMBER: 2001:134241 USPAT2
TITLE: Substituted N-benzylindol-3-ylglyoxylic acid derivatives having antitumor action
INVENTOR(S): Gunther, Eckhard, Maintal, GERMANY, FEDERAL REPUBLIC OF
Emig, Peter, Bruchkobel, GERMANY, FEDERAL REPUBLIC OF
Reichert, Dietmar, Eschau, GERMANY, FEDERAL REPUBLIC OF
Le Baut, Guillaume, Saint Sebastien/Loire, FRANCE
Nickel, Bernd, Muhltal, GERMANY, FEDERAL REPUBLIC OF
Bacher, Gerald, Heidelberg, GERMANY, FEDERAL REPUBLIC OF
PATENT ASSIGNEE(S): Zentaris AG, Frankfurt am Main, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6432987	B2	20020813	
APPLICATION INFO.:	US 2000-736431		20001215	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1999-19962300	19991223

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Rotman, Alan L.
LEGAL REPRESENTATIVE: Pillsbury Winthrop LLP
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 558
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to novel, substituted N-benzyl-indol-3-ylglyoxylic acid derivatives of the following formula and their use for the treatment of oncoses ##STR1##

The invention further relates to their physiologically tolerable acid addition salts and if possible their N-oxides. In addition, the invention relates to pharmaceutical preparations containing at least one of the compounds of the abovementioned formula or their salts or N-oxides with physiologically tolerable inorganic or organic acids and, if appropriate, pharmaceutically utilizable vehicles and/or diluents or excipients and also administration forms of the compounds of the abovementioned formula containing at least one of the compounds of this formula or their salts in the form of tablets, coated tablets, capsules, solutions for infusion or ampoules, suppositories, patches, powder

preparations which can be employed by inhalation, suspensions, creams and ointments

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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  File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
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  File  71:ELSEVIER BIOBASE 1994-2006/May W3
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  File 155:MEDLINE(R) 1951-2006/May 26
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*File 155: Please see HELP NEWS 154
for information about recent updates added to MEDLINE.

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          358461  PHOSPHATASE
           88711  PHOSPHODIE?
      S2  443775  PHOSPHODIESTER? OR PHOSPHATASE OR PHOSPHODIE?
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          443775  S2
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 3/6,K/1     (Item 1 from file: 5)
DIALOG(R)File   5:(c) 2006 BIOSIS. All rts. reserv.

0014912810   BIOSIS NO.: 200400283567
Pyrimidine carboxamides useful as inhibitors of PDE4 isozymes
2004

...ABSTRACT: asthma; chronic obstructive pulmonary disease (COPD) including
```

chronic bronchitis, emphysema, and bronchiectasis; chronic rhinitis; and **chronic sinusitis.**
DESCRIPTORS:
...DISEASES: **chronic sinusitis** --
CHEMICALS & BIOCHEMICALS: ...enzyme inhibitor-drug, 3', 5'-cyclic nucleotide **phosphodiesterase** inhibitor

3/6,K/2 (Item 2 from file: 5)
DIALOG(R)File 5:(c) 2006 BIOSIS. All rts. reserv.

0014268118 BIOSIS NO.: 200300226837
Human osteoclast maturation from bone marrow cells co-cultured with osteoblast from ethmoid sinus.
2003

ABSTRACT: In **chronic sinusitis** , although the pathogenesis in the sinus mucosa has been widely investigated, the pathogenesis in the...

...identified by the formation of absorption lacuna and positive cytochemical staining for tartrate-resistant acid **phosphatase** (TRAP). Differentiation was induced in the co-culture system by treatment with medium containing 1...
...REGISTRY NUMBERS: tartrate-resistant acid **phosphatase** ;
DESCRIPTORS:
CHEMICALS & BIOCHEMICALS: tartrate-resistant acid **phosphatase** {TRAP
...

3/6,K/3 (Item 3 from file: 5)
DIALOG(R)File 5:(c) 2006 BIOSIS. All rts. reserv.

0007824044 BIOSIS NO.: 199192069815
CHEMOTACTIC AND ENZYME RELEASING FACTORS FOR POLYMORPHONUCLEAR CELLS IN MAXILLARY MUCOSA WITH CHRONIC INFLAMMATION
1991

...ABSTRACT: of tissure extracts of maxillary mucosa (MM), nasal polyp (NP) and nasal secretions (NS) from **chronic sinusitis** (CS) patients, and inferior turbinate (IT) from nasal allergy (NA) patients were studied on polymorphonuclear...

...the highest chemotactic activity (chemotactic index, 45.2 .+-. 31.6%). The percent release of acid **phosphatase** from PMN suspension following application of MM extract (58.7 .+-. 31.7%) was significantly higher...

...first fraction near void volume over 44 KD evoked the highest percent release of acid **phosphatase** . These results suggest that MM with chronic inflammation contains a certain amount of PMN chemotactic...
...REGISTRY NUMBERS: ACID **PHOSPHATASE**
DESCRIPTORS: HUMAN **CHRONIC SINUSITIS** NASAL ALLERGY ACID **PHOSPHATASE**
DESCRIPTORS:
CHEMICALS & BIOCHEMICALS: ACID **PHOSPHATASE**

3/6,K/4 (Item 1 from file: 34)
DIALOG(R)File 34:(c) 2006 Inst for Sci Info. All rts. reserv.

11537283 Genuine Article#: 665LJ Number of References: 15
Title: Human osteoclast maturation from bone marrow cells co-cultured with

osteoblast from ethmoid sinus (ABSTRACT AVAILABLE)
Publication date: 20030300

Abstract: In **chronic sinusitis** , although the pathogenesis in the sinus mucosa has been widely investigated, the pathogenesis in the...

...identified by the formation of absorption lacuna and positive cytochemical staining for tartrate-resistant acid **phosphatase** (TRAP). Differentiation was induced in the co-culture system by treatment with medium containing 1...

3/6,K/5 (Item 2 from file: 34)
DIALOG(R)File 34:(c) 2006 Inst for Sci Info. All rts. reserv.

11423692 Genuine Article#: 652BP Number of References: 28
Title: Establishment of osteoblast culture from human ethmoidal sinus (ABSTRACT AVAILABLE)
Publication date: 20030200

Abstract: Objective: **Chronic sinusitis** is characterized by persistent chronic inflammation of the sinus system and local expression and release...

...Methods: Ethmoidal sinus bone was obtained from patients at the time of sinus surgery for **chronic sinusitis** and outgrowth cell sheets were obtained according to the explant-outgrowth cell culture technique. In ...

...in the obtained cells, four major features of osteoblasts (collagen type I. osteocalcin synthesis., alkaline **phosphatase** activity and extracellular matrix mineralization ability) were investigated at the third passage of the culture...

...The cells obtained in our study clearly show collagen type I synthesis, osteocalcin synthesis, alkaline **phosphatase** activity and production of visible extracellular matrix mineralization. Production of TGF-beta1 in the medium...
...Identifiers--BONE MORPHOGENETIC PROTEIN-2; GROWTH-FACTOR-BETA; MESSENGER-RNA; ALKALINE- **PHOSPHATASE** ; GENE-EXPRESSION; MAXILLARY SINUS; CELLS; DIFFERENTIATION; PHENOTYPE; LOCALIZATION

3/6,K/6 (Item 1 from file: 155)
DIALOG(R)File 155:(c) format only 2006 Dialog. All rts. reserv.

14247932 PMID: 12677741
Human osteoclast maturation from bone marrow cells co-cultured with osteoblast from ethmoid sinus.
Mar 2003

In **chronic sinusitis** , although the pathogenesis in the sinus mucosa has been widely investigated, the pathogenesis in the...

... identified by the formation of absorption lacuna and positive cytochemical staining for tartrate-resistant acid **phosphatase** (TRAP). Differentiation was induced in the co-culture system by treatment with medium containing 1...
; Acid **Phosphatase** ; Bone Remodeling; Bone Resorption--physiopathology --PP; Cell Differentiation; Coculture Techniques; Humans; Isoenzymes;

Research Support, Non...
Enzyme No.: EC 3.1.3.- (tartrate-resistant acid **phosphatase**); EC 3.1.3.2 (Acid **Phosphatase**)
Chemical Name: Isoenzymes; tartrate-resistant acid **phosphatase** ; Acid **Phosphatase**

3/6,K/7 (Item 2 from file: 155)
DIALOG(R)File 155:(c) format only 2006 Dialog. All rts. reserv.

14180674 PMID: 12589850
Establishment of osteoblast culture from human ethmoidal sinus.
Feb 2003

OBJECTIVE: **Chronic sinusitis** is characterized by persistent chronic inflammation of the sinus system and local expression and release...

... METHODS: Ethmoidal sinus bone was obtained from patients at the time of sinus surgery for **chronic sinusitis** and outgrowth cell sheets were obtained according to the explant-outgrowth cell culture technique. In...

...in the obtained cells, four major features of osteoblasts (collagen type I, osteocalcin synthesis, alkaline **phosphatase** activity and extracellular matrix mineralization ability) were investigated at the third passage of the culture...

... The cells obtained in our study clearly show collagen type I synthesis, osteocalcin synthesis, alkaline **phosphatase** activity and production of visible extracellular matrix mineralization. Production of TGF-beta 1 in the...
; Adolescent; Adult; Aged; Alkaline **Phosphatase** --metabolism--ME; Calcification, Physiologic--physiology--PH; Chronic Disease; Collagen Type I--biosynthesis--BI; Ethmoid Sinusitis...
Enzyme No.: EC 3.1.3.1 (Alkaline **Phosphatase**)
Chemical Name: Collagen Type I; Transforming Growth Factor beta; transforming growth factor beta1; Osteocalcin; Alkaline **Phosphatase**
? ds

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Set     Items   Description
S1       4474   CHRONIC()SINUSI?
S2     443775   PHOSPHODIESTER? OR PHOSPHATASE OR PHOSPHODIE?
S3          7   S1 AND S2
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         5687983  NON
            5530  ALLERGIC RHINITIS
      S4       0  NON()ALLERGIC RHINITIS
? s non()allergic and rhinitis
         5687983  NON
          202331  ALLERGIC
            2907  NON(W)ALLERGIC
           51695  RHINITIS
      S5     921  NON()ALLERGIC AND RHINITIS
? s TNF or tumor()necros? or tumour()necro?
Processing
          225199  TNF
         2184920  TUMOR
          564086  NECROS?
          298780  TUMOR(W)NECROS?
          397176  TUMOUR
          686664  NECRO?
```

```
          40296  TUMOUR(W)NECRO?
      S6  367152  TNF OR TUMOR()NECROS? OR TUMOUR()NECRO?
? s s5 and s6
             921  S5
          367152  S6
      S7      22  S5 AND S6
? s s7/7,k/all
>>>Invalid syntax
? t s7/7,k/all
```

7/7,K/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014071972 BIOSIS NO.: 200300030691

Increased apoptosis of peripheral blood mononuclear cells in patients with perennial allergic asthma/ rhinitis **: Relation to serum markers of apoptosis.**

AUTHOR: Grzegorczyk Janina (Reprint); Kowalski Marek L; Pilat Anna; Iwaszkiewicz Jolanta
AUTHOR ADDRESS: Department of Clinical Immunology and Allergy, Faculty of Medicine, Medical University of Lodz, 251 Pomorska St., 92-213, Lodz, Poland**Poland
AUTHOR E-MAIL ADDRESS: ngrzegor@csk.am.lodz.pl
JOURNAL: Mediators of Inflammation 11 (4): p225-233 August 2002 2002
MEDIUM: print
ISSN: 0962-9351
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: BACKGROUND: The goal of our study was to examine spontaneous and stimulated apoptosis of peripheral blood MNC from allergic patients, sensitized to Der p I antigen as compared to cells from non-atopic subjects. Furthermore we aimed to investigate which populations of mononuclear cells (lymphocytes, monocytes) undergo the apoptosis and to determine relations between apoptosis and serum levels of sFas/APO-1, ICE/caspase-1 or **TNF** -alpha. Methods: The study included 17 patients with perennial, allergic asthma and/or allergic **rhinitis** (6 male and 11 female; mean age 29,5 years; (range 15-49)). Apoptosis was assessed by fluorescence technique and confirmed by flow-cytometric method and DNA ladder. Serum levels of sFas, ICE/caspase-1 or **TNF** -alpha were determined by immunoassays (ELISA). Results: Apoptotic index of unfractionated mononuclear cells (MNC) and lymphocytes (but not monocytes) were significantly higher in allergic patients as compared to **non - allergic** subjects after 48 and 72 hours of culture ($p<0.05$). Incubation of cells with ConA (10 mug/ml) resulted in a significant increase in the proportion of apoptotic cells in all populations once the apoptotic index for MNC and lymphocytes (but not monocytes) was again significantly higher in allergic as compared to **non - allergic** subjects after 24, 48 and 72 hour of culture. In allergic patients, mean serum sFas level, was significantly lower then in **non - allergic** group (mean value 624.8 pg/ml+-25.67 versus 802.0 pg/ml+-31.91; $p=0.003$) and in both groups sFas level correlated inversely with apoptosis of MNC. The mean ICE/caspase-1 concentration was significantly higher in sera of allergic patients as compared to **non - allergic** group (mean value 27.71 pg/ml+-3.79 vs. 23.54 pg/ml respectively; $p<0.01$). ICE/caspase-1 levels in allergic patients correlated with apoptotic index of mononuclear cells ($r=0.57$; $p<0.001$). Conclusions: An increased spontaneous and mitogen-induced apoptosis of MNC from peripheral blood of atopic patients

as well as different serum levels of sFas and ICE/caspase-1 correlating with apoptosis, suggest different regulation of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**

Increased apoptosis of peripheral blood mononuclear cells in patients with perennial allergic asthma/ rhinitis **: Relation to serum markers of apoptosis.**

...ABSTRACT: determine relations between apoptosis and serum levels of sFas/APO-1, ICE/caspase-1 or **TNF** -alpha. Methods: The study included 17 patients with perennial, allergic asthma and/or allergic **rhinitis** (6 male and 11 female; mean age 29,5 years; (range 15-49)). Apoptosis was...

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...ICE/caspase-1 concentration was significantly higher in sera of allergic patients as compared to **non - allergic** group (mean value 27.71 pg/ml+-3.79 vs. 23.54 pg/ml respectively...

...of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**

DESCRIPTORS:
DISEASES: perennial allergic asthma/ **rhinitis** --
CHEMICALS & BIOCHEMICALS: ... **tumor necrosis** factor receptor

7/7,K/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013459628 BIOSIS NO.: 200200053139
Expression of C-C chemokine TARC in human nasal mucosa and its regulation by cytokines
AUTHOR: Terada N (Reprint); Nomura T; Kim W J; Otsuka Y; Takahashi R; Kishi H; Yamashita T; Sugawara N; Fukuda S; Ikeda-Ito T; Konno A
AUTHOR ADDRESS: Department of Otorhinolaryngology, School of Medicine, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba, Chiba, 260-0856, Japan** Japan
JOURNAL: Clinical and Experimental Allergy 31 (12): p1923-1931 December, 2001 2001
MEDIUM: print
ISSN: 0954-7894
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Background Although interleukin (IL)-4 and IL-5 have been

demonstrated to play a critical role in the pathophysiology of allergic diseases such as allergic **rhinitis** , the mechanism that causes the predominance of Th2 lymphocytes has yet to be clarified. Thymus and activation-regulated chemokine (TARC) has been known to facilitate the recruitment, activation and development of Th2 polarized cells, leading investigators to suggest a role for TARC in the development of Th2 responses. Objective To gain a better understanding of the role of TARC in the pathogenesis of allergic **rhinitis** we investigated the cellular sources of this chemokine in nasal mucosa. In addition, the effect of cytokines on TARC production has been investigated. Methods The expression of TARC in human nasal mucosa was assessed by immunohistochemistry. To study the effect of cytokines on TARC production, epithelial cells, endothelial cells and fibroblasts, isolated from inferior nasal mucosa samples, were stimulated by a variety of cytokines including IL-4, IL-13, **tumour necrosis** factor (**TNF**)-alpha and interferon (IFN)-gamma. Results Epithelial cells in nasal mucosa in subjects with allergic **rhinitis** expressed higher signal level than those in non-allergy patients. Combined stimulation with IL-4 and **TNF** -alpha, as well as IL-13 and **TNF** -alpha, synergistically induced TARC expression in epithelial cells. Furthermore, the amount of TARC induced by these cytokines was higher in epithelial cells obtained from patients with allergic **rhinitis** than in those from **non - allergic** patients. Conclusion These results demonstrate a crucial role of nasal epithelial cells in the expression of TARC, and that Th2 cytokine IL-4 and IL-13 may promote Th2 responses by inducing TARC production from epithelial cells.
...ABSTRACT: demonstrated to play a critical role in the pathophysiology of allergic diseases such as allergic **rhinitis** , the mechanism that causes the predominance of Th2 lymphocytes has yet to be clarified. Thymus...

...To gain a better understanding of the role of TARC in the pathogenesis of allergic **rhinitis** we investigated the cellular sources of this chemokine in nasal mucosa. In addition, the effect...

...nasal mucosa samples, were stimulated by a variety of cytokines including IL-4, IL-13, **tumour necrosis** factor (**TNF**)-alpha and interferon (IFN)-gamma. Results Epithelial cells in nasal mucosa in subjects with allergic **rhinitis** expressed higher signal level than those in non-allergy patients. Combined stimulation with IL-4 and **TNF** -alpha, as well as IL-13 and **TNF** -alpha, synergistically induced TARC expression in epithelial cells. Furthermore, the amount of TARC induced by these cytokines was higher in epithelial cells obtained from patients with allergic **rhinitis** than in those from **non - allergic** patients. Conclusion These results demonstrate a crucial role of nasal epithelial cells in the expression...
DESCRIPTORS:
DISEASES: allergic **rhinitis** --
MESH TERMS: **Rhinitis** , Allergic, Perennial (MeSH)
CHEMICALS & BIOCHEMICALS: ... **TNF** -alpha { **tumor necrosis** factor-alpha

7/7,K/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012790777 BIOSIS NO.: 200000509090
Does a connection exist between inflammation and proliferation in the upper airways?
AUTHOR: Kremer B (Reprint); Verhoeven N C A J; Manni J J; Schins R P F; Borm P J A

AUTHOR ADDRESS: Abteilung Hals-, Nasen-, Ohrenheilkunde, Kopf- und Halschirurgie, Universitaetsklinik Maastricht, P. Debyelaan 25, NL-6202 AZ, Maastricht, Netherlands**Netherlands
JOURNAL: Allergologie 23 (9): p431-438 September, 2000 2000
MEDIUM: print
ISSN: 0344-5062
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: German

ABSTRACT: Inflammatory alterations of the lower airways can cause an increase in proliferative and malignant processes. It was our objective to clarify whether a similar connection exists in the upper airways. Therefore, a cross-section investigation of 16 patients with chronic **rhinitis** (7 allergic, 9 **non - allergic**), 10 patients with nasal polyps (3 allergic, 7 **non - allergic**), and 27 healthy controls was performed. First, measurements were taken to determine in which groups an increase of inflammation markers in nasal secretions exists (total cell number, cell distribution, soluble **tumor necrosis** factor 75, interleukin-6, interleukin-8, soluble intercellular adhesion molecule 1). Second, the concentrations of the proliferation markers epidermal growth factor and soluble epidermal growth factor receptor were determined. The results were analyzed by means of a multiple regression analysis. In both patient groups, significantly increased concentrations of s-TNFr-75, IL-6, IL-8 and albumin ($p < 0.05$) were found. A significantly increased total cell, eosinophil, lymphocyte or neutrophil count was found in at least one patient group ($p < 0.05$). EGF- and s-EGFr concentrations did not differ statistically significant between the control and patient groups. A clear correlation between markers for inflammation and proliferation was not proven, possibly due to a higher decomposition of the EGF-EGFr complex in the case of an increased release of EGF.

...ABSTRACT: exists in the upper airways. Therefore, a cross-section investigation of 16 patients with chronic **rhinitis** (7 allergic, 9 **non - allergic**), 10 patients with nasal polyps (3 allergic, 7 **non - allergic**), and 27 healthy controls was performed. First, measurements were taken to determine in which groups an increase of inflammation markers in nasal secretions exists (total cell number, cell distribution, soluble **tumor necrosis** factor 75, interleukin-6, interleukin-8, soluble intercellular adhesion molecule 1). Second, the concentrations of ...
DESCRIPTORS:
DISEASES: allergic **rhinitis** --
MESH TERMS: **Rhinitis** , Allergic, Perennial (MeSH...
CHEMICALS & BIOCHEMICALS: ...soluble **tumor necrosis** factor 75...

7/7,K/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0011065608 BIOSIS NO.: 199799699668
The pharmacological basis for the treatment of perennial allergic rhinitis **and** non - allergic rhinitis **with topical corticosteroids**
AUTHOR: Meltzer E O
AUTHOR ADDRESS: Allergy Asthma Med. Group Res. Cent., 9610 Granite Ridge Dr., San Diego, CA 92123, USA**USA
JOURNAL: Allergy (Copenhagen) 52 (SUPPL. 36): p33-40 1997 1997
ISSN: 0105-4538

DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The currently available respiratory topical corticosteroids are all effective at reducing the nasal symptoms of itch, sneezing, rhinorrhoea and obstruction associated with allergic **rhinitis** . The mechanism of action of corticosteroids is related to their anti-inflammatory activities. They have been documented to prevent fluid exudation and reduce the number of circulating inflammatory cells, including lymphocytes, mast cells, basophils, eosinophils, macrophages, and neutrophils. This occurs through multiple mechanisms, e.g. eosinophil infiltration is suppressed by preventing cytokine production, reducing local mechanisms of tissue infiltration, and decreasing eosinophil survival. Furthermore, corticosteroids also reduce preformed and newly-generated mediators (e.g. histamine, tryptase, prostanoids, leukotrienes), and inhibit production of cytokines and chemokines by inflammatory cells (e.g. IL-1 through IL-6, IL-8, RANTES, **TNF** -alpha, IFN-gamma and GM-CSF). The currently available corticosteroids differ pharmacologically. Fluticasone propionate appears to have the greatest affinity for the glucocorticoid receptor, and binds more quickly and dissociates more slowly from the receptor compared with other corticosteroids, suggesting a more prolonged duration of action. Its increased specificity for respiratory tissue may lead to greater potency with less potential for systemic adverse effects. Fluticasone propionate has been compared with other corticosteroids in animal models for relative topical and systemic potency, and according to these data, it has the most favourable risk-benefit ratio.

The pharmacological basis for the treatment of perennial allergic rhinitis **and** non - allergic rhinitis **with topical corticosteroids**

...ABSTRACT: effective at reducing the nasal symptoms of itch, sneezing, rhinorrhoea and obstruction associated with allergic **rhinitis** . The mechanism of action of corticosteroids is related to their anti-inflammatory activities. They have...

...and chemokines by inflammatory cells (e.g. IL-1 through IL-6, IL-8, RANTES, **TNF** -alpha, IFN-gamma and GM-CSF). The currently available corticosteroids differ pharmacologically. Fluticasone propionate appears ...

DESCRIPTORS:
MISCELLANEOUS TERMS: ... **NON** - **ALLERGIC** **RHINITIS** ; ...

...PERENNIAL ALLERGIC **RHINITIS** ;

7/7,K/5 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

12418376 Genuine Article#: 763YB Number of References: 28
Title: Transcription and translation of the chemokines RANTES and MCP-1 in nasal polyps and mucosa in allergic and non - allergic **rhinopathies**
Author(s): Marcella R; Croce A; Moretti A; Barbacane RC; Di Giocchino M; Conti P (REPRINT)
Corporate Source: Univ Chieti,Div Immunol, Sch Med,Via Vestini/I-66013 Chiet//Italy/ (REPRINT); Univ G DAnnunzio,Dept Oncol & Neurosci, Unit Immunol & Expt Med, Sch Med,Chieti//Italy/; Univ G DAnnunzio,ENT Dept,

Sch Med,Chieti//Italy/; Univ G DAnnunzio,Allergol Div, Sch Med,Chieti//Italy/
Journal: IMMUNOLOGY LETTERS, 2003, V90, N2-3 (DEC 15), P71-75
ISSN: 0165-2478 Publication date: 20031215
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Language: English Document Type: ARTICLE
Abstract: The pathogenetic findings of rhinopathies show an increase in infiltrating cells including eosinophils. RANTES is a beta chemokine in which the cysteines are adjacent (C-C), and it attracts and activates eosinophil. We hypothesize that RANTES is locally produced within the nasal polyp microenvironment and is responsible for the inflammatory cell recruitment present in nasal polyposis. To test this hypothesis, we evaluated nasal polyps and mucosa from allergic and control, **non - allergic** patients for RANTES content. The relative levels of RANTES and MCP-1 protein in tissue homogenates were quantified using enzyme-linked immunosorbent assay technology, and quantitative reverse transcriptase-polymerase chain reaction (RT-PCR) tests for RANTES and MCP-1 mRNA expression were performed.

The results indicate that RANTES expression and production increase in nasal mucosa (septal and turbinate portions) of allergic patients compared to the same mucosa in **non - allergic** patients. In allergic patients, RANTES levels of nasal polyp homogenates were nearly 12-fold higher than the RANTES levels in mucosa homogenate.

In this study, we hypothesize that the particular anatomic structure and physiologic function of the turbinates are more involved in the pathogenesis of **rhinitis** and may undergo polypoid degeneration in allergic **rhinitis** than any other anatomical structure of the nose. Our data suggest that RANTES is more involved than MCP-1 in recruiting inflammatory cells in rhinological disease and may reflect the degree of local inflammation as consequence of the specific chemoattractant properties of RANTES. The level of RANTES in nasal polyps could be important in the development of the pathological state. (C) 2003 Elsevier B.V. All rights reserved.
...**Title: of the chemokines RANTES and MCP-1 in nasal polyps and mucosa in allergic and** non - allergic **rhinopathies**
...Abstract: polyposis. To test this hypothesis, we evaluated nasal polyps and mucosa from allergic and control, **non - allergic** patients for RANTES content. The relative levels of RANTES and MCP-1 protein in tissue...

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...anatomic structure and physiologic function of the turbinates are more involved in the pathogenesis of **rhinitis** and may undergo polypoid degeneration in allergic **rhinitis** than any other anatomical structure of the nose. Our data suggest that RANTES is more...
...Identifiers--CHEMOTACTIC PROTEIN-1 MCP-1; HISTIDINE-DECARBOXYLASE; CELL RECRUITMENT; MAST-CELLS; **TNF** -ALPHA; **RHINITIS;** EXPRESSION; IMMUNOTHERAPY; LYMPHOCYTES; GENERATION

7/7,K/6 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

11838673 Genuine Article#: 702AM Number of References: 50
Title: Pituitary adenylate cyclase-activating polypeptide, effects in the human nose
Author(s): Kinhult J; Adner M; Uddman R; Cardell LO (REPRINT)
Corporate Source: Malmo Univ Hosp,Dept Otorhinolaryngol, Lab Clin & Expt Allergy Res,Malmo//Sweden/ (REPRINT); Malmo Univ Hosp,Dept Otorhinolaryngol, Lab Clin & Expt Allergy Res,Malmo//Sweden/
Journal: CLINICAL AND EXPERIMENTAL ALLERGY, 2003, V33, N7 (JUL), P942-949
ISSN: 0954-7894 Publication date: 20030700
Publisher: BLACKWELL PUBLISHING LTD, 9600 GARSINGTON RD, OXFORD OX4 2DG, OXON, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Background Pituitary adenylate cyclase-activating peptide (PACAP) is a neuropeptide with strong vaso- and bronchodilator capacity. There is recent evidence that PACAP decreases the release of proinflammatory cytokines and we have previously shown that PACAP inhibits neutrophil chemotaxis in vitro , but little is known about the effects of PACAP in human upper and lower airways.

Objective To investigate the effects of PACAP in the human upper respiratory tract focusing on vasodilatation/nasal airway resistance (NAR), neutrophil recruitment, plasma extravasation and endogenous production of IL-1-related mediators.

Methods Surgical specimens from five patients (aged 19-55 years), obtained in conjunction with nasal surgery, were used for immunohistochemical localization of PACAP in the nasal mucosa. In seven, healthy, **non - allergic** , non-smoking subjects (aged 19-45 years), NAR was measured with rhinomanometry. Nasal lavage was performed, before and after intranasal application of PACAP (200 muL of a 1 mum PACAP solution in each nasal cavity), with and without the addition of histamine. Cells, albumin and IL-1-related mediators were analysed in nasal lavage. In addition, the effects on pulse, blood pressure, ECG and pulmonary function were evaluated.

Results In the nasal mucosa, PACAP-like immunoreactive nerve fibres were seen close to blood vessels and seromucous glands. Application of PACAP in the nasal cavity increased NAR and augmented the increase in NAR induced by histamine. In addition, PACAP inhibited histamine-induced recruitment of neutrophils, increased plasma leakage and reduced the level of IL-1RA (an endogenously produced IL-1 receptor antagonist) in nasal lavage. Cardiovascular and pulmonary parameters were not affected.

Conclusion These results imply that PACAP is an important endogenous mediator in human upper airways, with a potential role as a regulator of vascular smooth muscle, secretion, plasma extravasation, neutrophil recruitment and cytokine activity.

...Abstract: surgery, were used for immunohistochemical localization of PACAP in the nasal mucosa. In seven, healthy, **non - allergic** , non-smoking subjects (aged 19-45 years), NAR was measured with rhinomanometry. Nasal lavage was...
...Identifiers--PEPTIDE; EOSINOPHIL CATIONIC PROTEIN; HUMAN NASAL-MUCOSA; PIGS IN-VIVO; PROINFLAMMATORY CYTOKINES; PERITONEAL-MACROPHAGES; ALLERGIC **RHINITIS** ; HUMAN AIRWAYS; **TNF** -ALPHA; RAT-BRAIN

7/7,K/7 (Item 3 from file: 34)

10983187 Genuine Article#: 593HK Number of References: 31
Title: Increased apoptosis of peripheral blood mononuclear cells in patients with perennial allergic asthma/ rhinitis **: relation to serum markers of apoptosis.**
Author(s): Grzegorczyk J (REPRINT) ; Kowalski ML; Pilat A; Iwaszkiewicz J
Corporate Source: Med Univ Lodz,Fac Med, Dept Allergy & Clin Immunol,251 Pomorska St/PL-92213 Lodz//Poland/ (REPRINT); Med Univ Lodz,Fac Med, Dept Allergy & Clin Immunol,PL-92213 Lodz//Poland/; Cent Clin Hosp,Lodz//Poland/
Journal: MEDIATORS OF INFLAMMATION, 2002, V11, N4, P225-233
ISSN: 0962-9351 Publication date: 20020000
Publisher: CARFAX PUBLISHING, RANKINE RD, BASINGSTOKE RG24 8PR, HANTS, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Background: The goal of our study was to examine spontaneous and stimulated apoptosis of peripheral blood MNC from allergic patients, sensitized to Der p I antigen as compared to cells from non-atopic subjects. Furthermore we aimed to investigate which populations of mononuclear cells (lymphocytes, monocytes) undergo the apoptosis and to determine relations between apoptosis and serum levels of sFas/APO-1, ICE/caspase-1 or **TNF** -alpha.

Methods: The study included 17 patients with perennial, allergic asthma and/or allergic **rhinitis** [6 male and 11 female; mean age 29, 5 years; (range 15-49)].

Apoptosis was assessed by fluorescence technique and confirmed by flow-cytometric method and DNA ladder. Serum levels of sFas, ICE/caspase-1 or **TNF** -alpha were determined by immunoassays (ELISA).

Results: Apoptotic index of unfractionated mononuclear cells (MNC) and lymphocytes (but not monocytes) were significantly higher in allergic patients as compared to **non - allergic** subjects after 48 and 72 hours of culture ($p<0.05$). Incubation of cells with ConA (10 mg/ml) resulted in a significant increase in the proportion of apoptotic cells in all populations once the apoptotic index for MNC and lymphocytes (but not monocytes) was again significantly higher in allergic as compared to **non - allergic** subjects after 24, 48 and 72 hour of culture.

In allergic patients, mean serum sFas level, was significantly lower then in **non - allergic** group (mean value 624.8 pg/ml &PLUSMN; 25.67 versus 802.0 pg/ml &PLUSMN; 31.91; $p=0.003$) and in both groups sFas level correlated inversely with apoptosis of MNC. The mean ICE/caspase-1 concentration was significantly higher in sera of allergic patients as compared to **non - allergic** group (mean value 27.71 pg/ml &PLUSMN; 3.79 vs. 23.54 pg/ml respectively; $p<0.01$). ICE/caspase-1 levels in allergic patients correlated with apoptotic index of mononuclear cells ($r=0.57$; $p<0.001$).

Conclusions: An increased spontaneous and mitogen-induced apoptosis of MNC from peripheral blood of atopic patients as well as different serum levels of sFas and ICE/caspase-1 correlating with apoptosis, suggest different regulation of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**

Title: Increased apoptosis of peripheral blood mononuclear cells in patients with perennial allergic asthma/ rhinitis **: relation to serum markers of apoptosis.**
...Abstract: determine relations between apoptosis and serum levels of sFas/APO-1, ICE/caspase-1 or **TNF** -alpha.

Methods: The study included 17 patients with perennial, allergic asthma and/or allergic **rhinitis** [6 male and 11 female; mean age 29, 5 years; (range 15-49)].

Apoptosis was...

...by flow-cytometric method and DNA ladder. Serum levels of sFas, ICE/caspase-1 or **TNF** -alpha were determined by immunoassays (ELISA).

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In allergic patients, mean serum sFas level, was significantly lower then in **non** - **allergic** group (mean value 624.8 pg/ml &PLUSMN; 25.67 versus 802.0 pg/ml...

...ICE/caspase-1 concentration was significantly higher in sera of allergic patients as compared to **non** - **allergic** group (mean value 27.71 pg/ml &PLUSMN; 3.79 vs. 23.54 pg/ml...
...of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**

7/7,K/8 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

10553209 Genuine Article#: 541QB Number of References: 33
Title: Cytokine pattern in allergic and non - allergic **chronic rhinosinusitis in asthmatic children**
Author(s): Riccio AN; Tosca NA; Cosentino C; Pallestrini E; Ameli F; Canonica GW; Ciprandi G (REPRINT)
Corporate Source: Osped San Martino Genova,Head & Neck Dept,Padigl Maragliano Piano Terra,Largo R Benzi 10/I-16132 Genoa//Italy/ (REPRINT) ; Univ Genoa,Dept Internal Med,I-16126 Genoa//Italy/; Osped San Martino Genova,Head & Neck Dept,I-16132 Genoa//Italy/
Journal: CLINICAL AND EXPERIMENTAL ALLERGY, 2002, V32, N3 (MAR), P422-426
ISSN: 0954-7894 Publication date: 20020300
Publisher: BLACKWELL PUBLISHING LTD, P O BOX 88, OSNEY MEAD, OXFORD OX2 0NE, OXON, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Background Rhinosinusitis represents one of the most common chronic diseases. The association of rhinosinusitis with asthma has been frequently reported. Eosinophils and Th2 cells play a pathogenic mechanism in asthma.

Objective The aims of the study were to evaluate the cytokine pattern in chronic rhinosinusitis in asthmatic children and to compare the findings in allergic vs. **non** - **allergic** asthmatics.

Methods Thirty-five asthmatic children were evaluated, 19 males and 16 females, with an average age of 8.7 years. All children were asthmatic and suffered from chronic rhinosinusitis. Twenty were allergic and 15 were **non** - **allergic** . Ten healthy children were

studied as normal controls, Evaluated parameters were the levels of the following cytokines: IL-1beta, L-4, IL-6, IL-8, IL-12, IFN-gamma and **TNF** -alpha. Cytokines were recovered from rhinosinusal lavage and measured by immunoassays. Nasal cytology was also performed in all subjects and inflammatory cells were counted by conventional staining,

Results Allergic subjects showed a significant increase of IL-4 ($P < 0.01$ and **TNF** -α ($P < 0.05$) and a significant decrease of IL-12 ($P < 0.05$) and of IFN-γ ($P < 0,0001$), whereas IL-1beta, IL-6 and IL-8 were not significantly increased. **Non - allergic** children showed a significant increase of IL-4 ($P < 0.05$) and a significant decrease of IFN-γ ($P < 0.0001$), IL-1 2 was not significantly decreased, and IL-1beta, IL-6 and IL-8 were not significantly increased. A significant inflammatory infiltrate was present in all asthmatic children. Significant correlations were demonstrated between IL-4 and IL-12 ($P < 0.001$), IL-12 and IFN-γ ($P <0.001$), IL-8 and neutrophils ($P < 0.01$), and **TNF** -α and monocytes macrophages ($P<0.05$), in allergic asthmatics. IL-4 and IL-12 were significantly correlated ($P < 0.05$) as well as IL-8 and neutrophils ($P < 0.01$)in **non - allergic** asthmatics.

Conclusion This study shows that allergic asthmatic children with chronic rhinosinusitis have a typical Th2 cytokine pattern, but also **non - allergic** asthmatic children share a similar pattern. These findings would suggest the existence of a common pathophysiological mechanism shared by upper and lower airways and are consistent with the concept of united airways disease.

Title: Cytokine pattern in allergic and non - allergic **chronic rhinosinusitis in asthmatic children**

...Abstract: pattern in chronic rhinosinusitis in asthmatic children and to compare the findings in allergic vs. **non - allergic** asthmatics.

Methods Thirty-five asthmatic children were evaluated, 19 males and 16 females, with an...

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...staining,

Results Allergic subjects showed a significant increase of IL-4 ($P < 0.01$ and **TNF** -α ($P < 0.05$) and a significant decrease of IL-12 ($P < 0.05$) and...

...$P < 0,0001$), whereas IL-1beta, IL-6 and IL-8 were not significantly increased. **Non - allergic** children showed a significant increase of IL-4 ($P < 0.05$) and a significant decrease...

...12 and IFN-γ ($P <0.001$), IL-8 and neutrophils ($P < 0.01$), and **TNF** -α and monocytes macrophages ($P<0.05$), in allergic asthmatics. IL-4 and IL-12...

...correlated ($P < 0.05$) as well as IL-8 and neutrophils ($P < 0.01$)in **non - allergic** asthmatics.

Conclusion This study shows that allergic asthmatic children with

chronic rhinosinusitis have a typical Th2 cytokine pattern, but also **non - allergic** asthmatic children share a similar pattern. These findings would suggest the existence of a common...
...Identifiers--CHRONIC HYPERPLASTIC SINUSITIS; COLONY-STIMULATING FACTOR; MESSENGER-RNA EXPRESSION; TISSUE EOSINOPHILIA; NASAL POLYPOSIS; MANAGEMENT; **RHINITIS**; CELLS; MACROPHAGES; DISEASE

7/7,K/9 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

10244744 Genuine Article#: 503NP Number of References: 31
Title: Expression of C-C chemokine TARC in human nasal mucosa and its regulation by cytokines
Author(s): Terada N (REPRINT) ; Nomura T; Kim WJ; Otsuka Y; Takahashi R; Kishi H; Yamashita T; Sugawara N; Fukuda S; Ikeda-Ito T; Konno A
Corporate Source: Chiba Univ,Sch Med, Dept Otorhinolaryngol, Chuo Ku,1-8-1 Inohana/Chiba 2600856//Japan/ (REPRINT); Chiba Univ,Sch Med, Dept Otorhinolaryngol, Chuo Ku,Chiba 2600856//Japan/; R&D Mitsubisi Kagaku Bioclin Labs Inc,Tokyo//Japan/; Nissui Pharmaceut Co Ltd,Res Inst,Hokunanmoro/Yuki/Japan/
Journal: CLINICAL AND EXPERIMENTAL ALLERGY, 2001, V31, N12 (DEC), P 1923-1931
ISSN: 0954-7894 Publication date: 20011200
Publisher: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD OX2 0NE, OXON, ENGLAND
Language: English Document Type: ARTICLE
Abstract: Background Although interleukin (IL)-4 and IL-5 have been demonstrated to play a critical role in the pathophysiology of allergic diseases such as allergic **rhinitis** , the mechanism that causes the predominance of Th2 lymphocytes has yet to be clarified. Thymus and activation-regulated chemokine (TARC) has been known to facilitate the recruitment, activation and development of Th2 polarized cells, leading investigators to suggest a role for TARC in the development of Th2 responses.

Objective To gain a better understanding of the role of TARC in the pathogenesis of allergic **rhinitis** we investigated the cellular sources of this chemokine in nasal mucosa. In addition, the effect of cytokines on TARC production has been investigated.

Methods The expression of TARC in human nasal mucosa was assessed by immunohistochemistry. To study the effect of cytokines on TARC production, epithelial cells, endothelial cells and fibroblasts, isolated from inferior nasal mucosa samples, were stimulated by a variety of cytokines including IL-4, IL-13, **tumour necrosis** factor (**TNF**)-alpha and interferon (IFN)-gamma.

Results Epithelial cells in nasal mucosa in subjects with allergic **rhinitis** expressed higher signal level than those in non-allergy patients. Combined stimulation with IL-4 and **TNF** -alpha, as well as IL-13 and **TNF** -alpha, synergistically induced TARC expression in epithelial cells. Furthermore, the amount of TARC induced by these cytokines was higher in epithelial cells obtained from patients with allergic **rhinitis** than in those from **non - allergic** patients.

Conclusion These results demonstrate a crucial role of nasal epithelial cells in the expression of TARC, and that Th2 cytokine IL-4 and IL-13 may promote Th2 responses by inducing TARC production from

epithelial cells.

...Abstract: demonstrated to play a critical role in the pathophysiology of allergic diseases such as allergic **rhinitis** , the mechanism that causes the predominance of Th2 lymphocytes has yet to be clarified. Thymus...

...To gain a better understanding of the role of TARC in the pathogenesis of allergic **rhinitis** we investigated the cellular sources of this chemokine in nasal mucosa. In addition, the effect...

...nasal mucosa samples, were stimulated by a variety of cytokines including IL-4, IL-13, **tumour necrosis** factor (**TNF**)-alpha and interferon (IFN)-gamma.

Results Epithelial cells in nasal mucosa in subjects with allergic **rhinitis** expressed higher signal level than those in non-allergy patients. Combined stimulation with IL-4 and **TNF** -alpha, as well as IL-13 and **TNF** -alpha, synergistically induced TARC expression in epithelial cells. Furthermore, the amount of TARC induced by these cytokines was higher in epithelial cells obtained from patients with allergic **rhinitis** than in those from **non - allergic** patients.

Conclusion These results demonstrate a crucial role of nasal epithelial cells in the expression...

...Identifiers--COLONY-STIMULATING FACTOR; ALLERGEN-INDUCED **RHINITIS** ; CELL-ADHESION MOLECULE-1; NF-KAPPA-B; MESSENGER-RNA; ENDOTHELIAL-CELLS; EPITHELIAL-CELLS; RECEPTOR EXPRESSION...

7/7,K/10 (Item 6 from file: 34)

09036761 Genuine Article#: 359ET Number of References: 23

Title: Does a connection exist between inflammation and proliferation in the upper airways?

Author(s): Kremer B (REPRINT) ; Verhoeven NCAJ; Manni JJ; Schins RPF; Borm PJA
Corporate Source: UNIV KLIN MAASTRICHT,UNIT HALS NASEN OHRENHEILKUNDE KOPF & HALSCHIRURG, P DEBYELAAN 25/NL-6202 AZ MAASTRICHT//NETHERLANDS/ (REPRINT)

Journal: ALLERGOLOGIE, 2000, V23, N9 (SEP), P431-438
ISSN: 0344-5062 Publication date: 20000900
Publisher: DUSTRI-VERLAG DR KARL FEISTLE, BAHNHOFSTRABE 9 POSTFACH 49, W-8024 MUNCHEN-DEISENHOFEN, GERMANY
Language: German Document Type: ARTICLE

Abstract: Inflammatory alterations of the lower airways can cause an increase in proliferative and malignant processes. It was our objective to clarify whether a similar connection exists in the upper airways. Therefore, a cross-section investigation of 16 patients with chronic **rhinitis** (7 allergic, 9 **non - allergic**), 10 patients with nasal polyps (3 allergic, 7 **non - allergic**), and 27 healthy controls was performed. First, measurements were taken to determine in which groups an increase of inflammation markers in nasal secretions exists (total cell number, cell distribution, soluble **tumor necrosis** factor 75, interleukin-6, interleukin-8, soluble intercellular adhesion molecule I). Second, the concentrations of the proliferation markers epidermal growth factor and soluble epidermal growth factor receptor were determined. The results were analyzed by means of a multiple regression

analysis. In both patient groups, significantly increased concentrations of s-TNFr-75, IL-6, IL-8 and albumin ($p < 0.05$) were found. A significantly increased total cell, eosinophil, lymphocyte or neutrophil count was found in at least one patient group ($p < 0.05$). EGF- and s-EGFr concentrations did not differ statistically significant between the control and patient groups. A clear correlation between markers for inflammation and proliferation was not proven, possibly due to a higher decomposition of the EGF-EGFr complex in the case of an increased release of EGF.

...Abstract: exists in the upper airways. Therefore, a cross-section investigation of 16 patients with chronic **rhinitis** (7 allergic, 9 **non - allergic**), 10 patients with nasal polyps (3 allergic, 7 **non - allergic**), and 27 healthy controls was performed. First, measurements were taken to determine in which groups an increase of inflammation markers in nasal secretions exists (total cell number, cell distribution, soluble **tumor necrosis** factor 75, interleukin-6, interleukin-8, soluble intercellular adhesion molecule I). Second, the concentrations of...
...Identifiers--EPIDERMAL GROWTH-FACTOR; NECROSIS-FACTOR-ALPHA; NASAL LAVAGE; HUMAN MONOCYTES; LUNG-CANCER; RELEASE; EXPRESSION; **RHINITIS**; PROTEIN; CELLS

7/7,K/11 (Item 7 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

06337866 Genuine Article#: YK493 Number of References: 40
Title: Immunolocalization of cytokines to mast cells in normal and allergic conjunctiva
Author(s): MacLeod JDA (REPRINT) ; Anderson DF; Baddeley SM; Holgate ST; McGill JI; Roche WR
Corporate Source: SOUTHAMPTON GEN HOSP,SOUTHAMPTON EYE UNIT, TREMONA RD/SOUTHAMPTON SO1 6YD/HANTS/ENGLAND/ (REPRINT)
Journal: CLINICAL AND EXPERIMENTAL ALLERGY, 1997, V27, N11 (NOV), P 1328-1334
ISSN: 0954-7894 Publication date: 19971100
Publisher: BLACKWELL SCIENCE LTD, OSNEY MEAD, OXFORD, OXON, ENGLAND OX2 0EL
Language: English Document Type: ARTICLE
Abstract: Background Recently, the potential role of mast cells in allergic reactions has been extended by the discovery that these cells synthesize, store and secrete multifunctional cytokines. Seasonal allergic conjunctivitis is characterized as an immediate hypersensitivity reaction, in which allergen binds to specific IgE on mast cells, leading to release of preformed and newly synthesized inflammatory mediators.

Objective In this study we aimed to localize the cytokines IL-4, IL-5, IL-6, IL-8 and **TNF** alpha to conjunctival mast cells and to examine the relationship between mast cell-associated cytokines and allergic conjunctivitis.

Methods Immunohistochemistry was performed on serial sections of conjunctival biopsies from patients with seasonal allergic conjunctivitis, in and out of the hay fever season, as well as from **non - allergic** volunteers.

Results IL-4, IL-5, IL-6 and **TNF** alpha were localized to mast cells in normal and allergic conjunctiva. IL-8 was localized to mast

cells in two patients with seasonal allergic conjunctivitis, one during and the other outside the pollen season. Using the monoclonal antibody 3H4, which identifies the secreted form of IL-4, biopsies from patients with active seasonal allergic conjunctivitis contained a significantly higher proportion of mast cells positive for IL-4, than those from out-of-season patients (P =< 0.016). There was no difference between the two groups in the number of mast cells immunostained by the antibody 4D9 which identifies the stored form of IL-4.

Conclusions These results suggest that conjunctival mast cells can store a range of multifunctional cytokines and release IL-4 during active disease, which may give them an important role in upregulating allergic inflammation in the conjunctiva.

...Abstract: we aimed to localize the cytokines IL-4, IL-5, IL-6, IL-8 and **TNF** alpha to conjunctival mast cells and to examine the relationship between mast cell-associated cytokines...

...seasonal allergic conjunctivitis, in and out of the hay fever season, as well as from **non - allergic** volunteers.

Results IL-4, IL-5, IL-6 and **TNF** alpha were localized to mast cells in normal and allergic conjunctiva. IL-8 was localized...
...Identifiers--NECROSIS-FACTOR-ALPHA; FC-EPSILON-RI; MESSENGER-RNA EXPRESSION; HUMAN IGE SYNTHESIS; **TNF** -ALPHA; IL-4; PROVOCATION; RELEASE; LEVOCABASTINE; EOSINOPHILS
...Research Fronts: NODE HYPERPLASIA; MYELOMA CELLS)
95-2940 001 (VASCULAR CELL-ADHESION MOLECULE-1; EOSINOPHIL FUNCTION; ALLERGIC **RHINITIS** ; BASOPHIL MIGRATION; LEUKOCYTE INFILTRATION; LATE ANTIGEN-4; NASAL CHALLENGE)

7/7,K/12 (Item 8 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

05967120 Genuine Article#: XK948 Number of References: 29
Title: Selective type IV phosphodiesterase inhibitors prevent IL-4-induced IgE production by human peripheral blood mononuclear cells
Author(s): Coqueret O; Boichot E; Lagente V (REPRINT)
Corporate Source: UNIV RENNES 1,FAC SCI PHARMACEUT & BIOL, INSERM, U456, LAB PHARMACODYNAM & PHARMACOL MOL /F-35043 RENNES//FRANCE/ (REPRINT); UNIV RENNES 1,FAC SCI PHARMACEUT & BIOL, INSERM, U456, LAB PHARMACODYNAM & PHARMACOL MOL /F-35043 RENNES//FRANCE/
Journal: CLINICAL AND EXPERIMENTAL ALLERGY, 1997, V27, N7 (JUL), P816-823
ISSN: 0954-7894 Publication date: 19970700
Publisher: BLACKWELL SCIENCE LTD, OSNEY MEAD, OXFORD, OXON, ENGLAND OX2 0EL
Language: English Document Type: ARTICLE
Abstract: Background Selective type IV phosphodiesterase (PDE) inhibitors elicit anti-inflammatory and bronchodilatory activities in vitro and in vivo which suggest that these drugs could provide a new therapeutic approach for asthma treatment.

Objective Regarding the role of IgE production in allergic and inflammatory reactions of the airways, we investigated the effect of selective PDE inhibitors on IL-4-driven ISE production by peripheral blood mononuclear cells (PBMC) or by purified B lymphocytes.

Methods PBMC or purified B lymphocytes from **non - allergic** donors were stimulated for 13 days with IL-4 (100 U/mL) in the presence or in the absence of selective PDE inhibitors. IgE production is evaluated by

an ELISA technique.

Results The selective PDE IV inhibitors, rolipram and Ro 20-1724 (10 mu M), inhibit IL-4-induced IgE production by PBMC, but not by purified B lymphocytes. No modification of the IgE production was noted with the selective PDE III inhibitors, milrinone and SK&F 94-836, or the selective PDE V inhibitor, SK&F 96-231 (10 mu M). Flow cytometry experiments showed that the effect of Rolipram could not be explained by the inhibition of the cell surface expression of the IL-4 receptor, Similarly, no significant effect of PDE IV inhibitors was observed on PHA-induced cell proliferation, The incubation of monocytes only with rolipram was sufficient to achieve a significant reduction of IgE production induced by IL-4.

Conclusion Taken together, these results indicate that PDE TV inhibitors reduce IL-4-induced IEE production by PBMC and suggest that the inhibition of IgE production could be explained by a failure of monocytes to provide the necessary costimulatory signals.
...Abstract: mononuclear cells (PBMC) or by purified B lymphocytes.

Methods PBMC or purified B lymphocytes from **non - allergic** donors were stimulated for 13 days with IL-4 (100 U/mL) in the presence...
...Identifiers-- **TUMOR - NECROSIS** -FACTOR; HUMAN-LYMPHOCYTES; ALPHA PRODUCTION; GENE-EXPRESSION; PDE INHIBITORS; CYCLIC-AMP; **TNF** -ALPHA; ASTHMA; PROSTAGLANDIN-E2; INTERLEUKIN-4
...Research Fronts: CHRONIC OBSTRUCTIVE PULMONARY-DISEASE; ANTIINFLAMMATORY THERAPY)
95-4981 001 (MITE ANTIGEN-INDUCED IGE SYNTHESIS; ALLERGIC **RHINITIS** ; RECOMBINANT INTERLEUKIN-4; CD40 LIGAND EXPRESSION; PERIPHERAL-BLOOD MONONUCLEAR-CELLS)

7/7,K/13 (Item 9 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

05933100 Genuine Article#: XH588 Number of References: 65
Title: The pharmacological basis for the treatment of perennial allergic rhinitis **and** non - allergic rhinitis **with topical corticosteroids**
Author(s): Meltzer EO (REPRINT)
Corporate Source: ALLERGY & ASTHMA MED GRP & RES CTR,9610 GRANITE RIDGE DR/SAN DIEGO//CA/92123 (REPRINT)
Journal: ALLERGY, 1997, V52, 36, P33-40
ISSN: 0105-4538 Publication date: 19970000
Publisher: MUNKSGAARD INT PUBL LTD, 35 NORRE SOGADE, PO BOX 2148, DK-1016 COPENHAGEN, DENMARK
Language: English Document Type: ARTICLE
Abstract: The currently available respiratory topical corticosteroids are all effective at reducing the nasal symptoms of itch, sneezing, rhinorrhoea and obstruction associated with allergic **rhinitis** . The mechanism of action of corticosteroids is related to their anti-inflammatory activities. They have been documented to prevent fluid exudation and reduce the number of circulating inflammatory cells, including lymphocytes, mast cells, basophils, eosinophils, macrophages, and neutrophils. This occurs through multiple mechanisms, e.g. eosinophil infiltration is suppressed by preventing cytokine production, reducing local mechanisms of tissue infiltration, and decreasing eosinophil survival. Furthermore, corticosteroids also reduce preformed and newly-generated mediators (e.g. histamine, tryptase, prostanoids, leukotrienes), and inhibit production of cytokines and chemokines by inflammatory cells (e.g. IL-1 through IL-6,

IL-8, RANTES, **TNF** -alpha, IFN-gamma and GM-CSF). The currently available corticosteroids differ pharmacologically. Fluticasone propionate appears to have the greatest affinity for the glucocorticoid receptor, and binds more quickly and dissociates more slowly from the receptor compared with other corticosteroids, suggesting a more prolonged duration of action. Its increased specificity for respiratory tissue may lead to greater potency with less potential for systemic adverse effects. Fluticasone propionate has been compared with other corticosteroids in animal models for relative topical and systemic potency, and according to these data, it has the most favourable risk-benefit ratio.

Title: The pharmacological basis for the treatment of perennial allergic rhinitis **and** non - allergic rhinitis **with topical corticosteroids**
...Abstract: effective at reducing the nasal symptoms of itch, sneezing, rhinorrhoea and obstruction associated with allergic **rhinitis** . The mechanism of action of corticosteroids is related to their anti-inflammatory activities. They have...
...and chemokines by inflammatory cells (e.g. IL-1 through IL-6, IL-8, RANTES, **TNF** -alpha, IFN-gamma and GM-CSF). The currently available corticosteroids differ pharmacologically. Fluticasone propionate appears...
...Research Fronts: ADRENERGIC AGONISTS; CHRONIC OBSTRUCTIVE PULMONARY-DISEASE; SAFETY OF SALMETEROL)
95-7695 001 (NASAL HYPERREACTIVITY; ALLERGIC **RHINITIS** ; CELLULAR INFLAMMATION IN ASTHMA)

7/7,K/14 (Item 10 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

05883812 Genuine Article#: XE217 Number of References: 58
Title: T cell subsets and cytokines in allergic and non - allergic **children .2. Analysis of IL-5 and IL-10 mRNA expression and protein production**
Author(s): Koning H; Neijens HJ; Baert MRM; Oranje AP; Savelkoul HFJ (REPRINT)
Corporate Source: ERASMUS UNIV ROTTERDAM,DEPT IMMUNOL, POB 1738/NL-3000 DR ROTTERDAM//NETHERLANDS/ (REPRINT); ERASMUS UNIV ROTTERDAM,DEPT IMMUNOL/NL-3000 DR ROTTERDAM//NETHERLANDS/; SOPHIA CHILDRENS UNIV HOSP,DEPT PAEDIAT/ROTTERDAM//NETHERLANDS/; UNIV ROTTERDAM HOSP,DEPT DERMATOL & VENEROL/ROTTERDAM//NETHERLANDS/
Journal: CYTOKINE, 1997, V9, N6 (JUN), P427-436
ISSN: 1043-4666 Publication date: 19970600
Publisher: W B SAUNDERS CO, INDEPENDENCE SQUARE WEST CURTIS CENTER, STE 300, PHILADELPHIA, PA 19106-3399
Language: English Document Type: ARTICLE
Abstract: Interleukin 5 (IL-5) has an enhancing effect on IL-4 induced immunoglobulin E (IgE) synthesis, Furthermore, IL-5 plays an important role in the differentiation, recruitment, activation and survival of eosinophils. IL-10 has a downmodulating effect on interferon gamma (IFN-gamma) production and can exert strong anti-inflammatory activities, Therefore, we analysed whether differences were present in IL-5 and IL-10 mRNA expression and protein production between T cells of children with allergic and **non - allergic** asthma, atopic dermatitis and healthy control children, We demonstrated significant increases in IL-5 mRNA expression and protein production in different T cell fractions of children with allergic and **non - allergic** asthma and children with atopic dermatitis as compared to healthy controls,

This indicates that IL-5 is not only involved in allergy, but also plays a role in the inflammatory process of **non - allergic** asthma, Interestingly, IL-10 mRNA expression by purified T cells of children with allergic and **non - allergic** asthma and children with atopic dermatitis was strongly decreased as compared with that of healthy controls, In the peripheral blood mononuclear cell (PBMC) fraction, IL-10 mRNA expression was comparable between the four groups, We hypothesize that this decreased T cell derived IL-10 expression results in a lack of immunosuppression of the inflammatory process in these diseases, However, a role of monocyte derived IL-10 cannot be ruled out. (C) 1997 Academic Press Limited.

Title: T cell subsets and cytokines in allergic and non - allergic **children .2. Analysis of IL-5 and IL-10 mRNA expression and protein production**

...Abstract: IL-10 mRNA expression and protein production between T cells of children with allergic and **non - allergic** asthma, atopic dermatitis and healthy control children, We demonstrated significant increases in IL-5 mRNA expression and protein production in different T cell fractions of children with allergic and **non - allergic** asthma and children with atopic dermatitis as compared to healthy controls, This indicates that IL...

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...Identifiers--RECOMBINANT HUMAN INTERLEUKIN-5; INTERFERON-GAMMA PRODUCTION; **TUMOR - NECROSIS** -FACTOR; PERIPHERAL-BLOOD; GENE-EXPRESSION; MESSENGER-RNA; IGE SYNTHESIS; HUMAN MONOCYTES; CLONES; ASTHMA

...Research Fronts: EXPRESSION; IFN-GAMMA SECRETION)
95-2940 001 (VASCULAR CELL-ADHESION MOLECULE-1; EOSINOPHIL FUNCTION; ALLERGIC **RHINITIS** ; BASOPHIL MIGRATION; LEUKOCYTE INFILTRATION; LATE ANTIGEN-4; NASAL CHALLENGE)

7/7,K/15 (Item 1 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

02154587 2002235453
Increased apoptosis of peripheral blood mononuclear cells in patients with **perennial allergic asthma/** rhinitis **: Relation to serum markers of apoptosis**
Grzegorczyk J.; Kowalski M.L.; Pilat A.; Iwaszkiewicz J.
ADDRESS: Dr. J. Grzegorczyk, Department of Clinical Immunology, Faculty of Medicine, Medical University of Lodz, 251 Pomorska St., 92-213 Lodz, Poland
EMAIL: ngrzegor@csk.am.lodz.pl
Journal: Mediators of Inflammation, 11/4 (225-233), 2002, United Kingdom
CODEN: MNFLE
ISSN: 0962-9351
DOCUMENT TYPE: Article
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 32

BACKGROUND: The goal of our study was to examine spontaneous and stimulated apoptosis of peripheral blood MNC from allergic patients, sensitized to Der

p I antigen as compared to cells from non-atopic subjects. Furthermore we aimed to investigate which populations of mononuclear cells (lymphocytes, monocytes) undergo the apoptosis and to determine relations between apoptosis and serum levels of sFas/APO-1, ICE/caspase-1 or **TNF** -alpha. Methods: The study included 17 patients with perennial, allergic asthma and/or allergic **rhinitis** [6 male and 11 female; mean age 29,5 years; (range 15-49)]. Apoptosis was assessed by fluorescence technique and confirmed by flow-cytometric method and DNA ladder. Serum levels of sFas, ICE/caspase-1 or **TNF** -alpha were determined by immunoassays (ELISA). Results: Apoptotic index of unfractionated mononuclear cells (MNC) and lymphocytes (but not monocytes) were significantly higher in allergic patients as compared to **non - allergic** subjects after 48 and 72 hours of culture ($p<0.05$). Incubation of cells with ConA (10 mug/ml) resulted in a significant increase in the proportion of apoptotic cells in all populations once the apoptotic index for MNC and lymphocytes (but not monocytes) was again significantly higher in allergic as compared to **non - allergic** subjects after 24, 48 and 72 hour of culture. In allergic patients, mean serum sFas level, was significantly lower then in **non - allergic** group (mean value 624.8 pg/ml +/- 25.67 versus 802.0 pg/ml +/- 31.91; $p = 0.003$) and in both groups sFas level correlated inversely with apoptosis of MNC. The mean ICE/caspase-1 concentration was significantly higher in sera of allergic patients as compared to **non - allergic** group (mean value 27.71 pg/ml +/- 3.79 vs. 23.54 pg/ml respectively; $p<0.01$). ICE/caspase-1 levels in allergic patients correlated with apoptotic index of mononuclear cells ($r = 0.57$; $p<0.001$). Conclusions: An increased spontaneous and mitogen-induced apoptosis of MNC from peripheral blood of atopic patients as well as different serum levels of sFas and ICE/caspase-1 correlating with apoptosis, suggest different regulation of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**

Increased apoptosis of peripheral blood mononuclear cells in patients with perennial allergic asthma/ rhinitis **: Relation to serum markers of apoptosis**

...determine relations between apoptosis and serum levels of sFas/APO-1, ICE/caspase-1 or **TNF** -alpha. Methods: The study included 17 patients with perennial, allergic asthma and/or allergic **rhinitis** [6 male and 11 female; mean age 29,5 years; (range 15-49)]. Apoptosis was...

...by flow-cytometric method and DNA ladder. Serum levels of sFas, ICE/caspase-1 or **TNF** -alpha were determined by immunoassays (ELISA). Results: Apoptotic index of unfractionated mononuclear cells (MNC) and lymphocytes (but not monocytes) were significantly higher in allergic patients as compared to **non - allergic** subjects after 48 and 72 hours of culture ($p<0.05$). Incubation of cells with...
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...ICE/caspase-1 concentration was significantly higher in sera of allergic patients as compared to **non - allergic** group (mean value 27.71 pg/ml +/- 3.79 vs. 23.54 pg/ml respectively...

...of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**

7/7,K/16 (Item 2 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01923246 2002004189

Expression of C-C chemokine TARC in human nasal mucosa and its regulation by cytokines

Terada N.; Nomura T.; Kim W.J.; Otsuka Y.; Takahashi R.; Kishi H.; Yamashita T.; Sugawara N.; Fukuda S.; Ikeda-Ito T.; Konno A.
ADDRESS: N. Terada, Department of Otorhinolaryngology, School of Medicine, Chiba University, 1-8-1 Inohana, Chuo-ku, Chiba City, Chiba 260-0856, Japan
EMAIL: terada@med.m.chiba-u.ac.jp
Journal: Clinical and Experimental Allergy, 31/12 (1923-1931), 2001, United Kingdom
CODEN: CLEAE
ISSN: 0954-7894
DOCUMENT TYPE: Article
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 31

Background: Although interleukin (IL)-4 and IL-5 have been demonstrated to play a critical role in the pathophysiology of allergic diseases such as allergic **rhinitis** , the mechanism that causes the predominance of Th2 lymphocytes has yet to be clarified. Thymus and activation-regulated chemokine (TARC) has been known to facilitate the recruitment, activation and development of Th2 polarized cells, leading investigators to suggest a role for TARC in the development of Th2 responses. Objective: To gain a better understanding of the role of TARC in the pathogenesis of allergic **rhinitis** we investigated the cellular sources of this chemokine in nasal mucosa. In addition, the effect of cytokines on TARC production has been investigated. Methods: The expression of TARC in human nasal mucosa was assessed by immunohistochemistry. To study the effect of cytokines on TARC production, epithelial cells, endothelial cells and fibroblasts, isolated from inferior nasal mucosa samples, were stimulated by a variety of cytokines including IL-4, IL-13, **tumour necrosis** factor (**TNF**)-alpha and interferon (IFN)-gamma. Results: Epithelial cells in nasal mucosa in subjects with allergic **rhinitis** expressed higher signal level than those in non-allergy patients. Combined stimulation with IL-4 and **TNF** -alpha, as well as IL-13 and **TNF** -alpha, synergistically induced TARC expression in epithelial cells. Furthermore, the amount of TARC induced by these cytokines was higher in epithelial cells obtained from patients with allergic **rhinitis** than in those from **non - allergic** patients. Conclusion: These results demonstrate a crucial role of nasal epithelial cells in the expression of TARC, and that Th2 cytokine IL-4 and IL-13 may promote Th2 responses by inducing TARC production from epithelial cells.
...demonstrated to play a critical role in the pathophysiology of allergic diseases such as allergic **rhinitis** , the mechanism that causes the predominance of Th2 lymphocytes has yet to be clarified. Thymus...

...To gain a better understanding of the role of TARC in the pathogenesis of allergic **rhinitis** we investigated the cellular sources of this chemokine in nasal mucosa. In addition, the effect...

...nasal mucosa samples, were stimulated by a variety of cytokines including IL-4, IL-13, **tumour necrosis** factor (**TNF**)-alpha and interferon (IFN)-gamma. Results: Epithelial cells in nasal mucosa in subjects with allergic **rhinitis** expressed higher signal level than those in non-allergy patients. Combined stimulation with IL-4 and **TNF** -alpha, as well as IL-13 and **TNF** -alpha, synergistically induced TARC expression in

epithelial cells. Furthermore, the amount of TARC induced by these cytokines was higher in epithelial cells obtained from patients with allergic **rhinitis** than in those from **non - allergic** patients. Conclusion: These results demonstrate a crucial role of nasal epithelial cells in the expression...

DESCRIPTORS:
TARC; Chemokines; IL-4; IL-13; Epithelial cells; Allergic **rhinitis** ; Nasal mucosa

7/7,K/17 (Item 3 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

00645015 97151777
The pharmacological basis for the treatment of perennial allergic rhinitis **and** non - allergic rhinitis **with topical corticosteroids**
Meltzer E.O.
ADDRESS: Dr. E.O. Meltzer, AAMGRC, 9610 Granite Ridge Drive, San Diego, CA 92123, United States
Journal: Allergy: European Journal of Allergy and Clinical Immunology, Supplement, 52/36 (33-40), 1997, Denmark
PUBLICATION DATE: 19970000
CODEN: ALSUE
ISSN: 0108-1675
DOCUMENT TYPE: Conference Paper
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 65

The currently available respiratory topical corticosteroids are all effective at reducing the nasal symptoms of itch, sneezing, rhinorrhoea and obstruction associated with allergic **rhinitis** . The mechanism of action of corticosteroids is related to their anti-inflammatory activities. They have been documented to prevent fluid exudation and reduce the number of circulating inflammatory cells, including lymphocytes, mast cells, basophils, eosinophils, macrophages, and neutrophils. This occurs through multiple mechanisms, e.g. eosinophil infiltration is suppressed by preventing cytokine production, reducing local mechanisms of tissue infiltration, and decreasing eosinophil survival. Furthermore, corticosteroids also reduce preformed and newly-generated mediators (e.g. histamine, tryptase, prostanoids, leukotrienes), and inhibit production of cytokines and chemokines by inflammatory cells (e.g. IL-1 through IL-6, IL-8, RANTES, **TNF** -alpha, IFN-gamma and GM-CSF). The currently available corticosteroids differ pharmacologically. Fluticasone propionate appears to have the greatest affinity for the glucocorticoid receptor, and binds more quickly and dissociates more slowly from the receptor compared with other corticosteroids, suggesting a more prolonged duration of action. Its increased specificity for respiratory tissue may lead to greater potency with less potential for systemic adverse effects. Fluticasone propionate has been compared with other corticosteroids in animal models for relative topical and systemic potency, and according to these data, it has the most favourable risk-benefit ratio.

The pharmacological basis for the treatment of perennial allergic rhinitis **and** non - allergic rhinitis **with topical corticosteroids**

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DESCRIPTORS:
Cytokines; Fluticasone propionate; Inflammation; Pharmacology; **Rhinitis** ; Topical corticosteroids

7/7,K/18 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13981469 PMID: 12396474

Increased apoptosis of peripheral blood mononuclear cells in patients with perennial allergic asthma/ rhinitis **: relation to serum markers of apoptosis.**

Grzegorczyk Janina; Kowalski Marek L; Pilat Anna; Iwaszkiewicz Jolanta
Department of Clinical Immunology and Allergy, Faculty of Medicine, Medical University of Lodz, 251 Pomorska Street, 92-213 Lodz, Poland. ngrzegor@csk.am.lodz.pl

Mediators of inflammation (England) Aug 2002, 11 (4) p225-33, ISSN 0962-9351--Print Journal Code: 9209001
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

BACKGROUND: The goal of our study was to examine spontaneous and stimulated apoptosis of peripheral blood MNC from allergic patients, sensitized to Der p I antigen as compared to cells from non-atopic subjects. Furthermore we aimed to investigate which populations of mononuclear cells (lymphocytes, monocytes) undergo the apoptosis and to determine relations between apoptosis and serum levels of sFas/APO-1, ICE/caspase-1 or **TNF** -alpha. METHODS: The study included 17 patients with perennial, allergic asthma and/or allergic **rhinitis** [6 male and 11 female; mean age 29,5 years; (range 15-49)]. Apoptosis was assessed by fluorescence technique and confirmed by flow-cytometric method and DNA ladder. Serum levels of sFas, ICE/caspase-1 or **TNF** -alpha were determined by immunoassays (ELISA). RESULTS: Apoptotic index of unfractionated mononuclear cells (MNC) and lymphocytes (but not monocytes) were significantly higher in allergic patients as compared to **non - allergic** subjects after 48 and 72 hours of culture ($p<0.05$). Incubation of cells with ConA (10 microg/ml) resulted in a significant increase in the proportion of apoptotic cells in all populations once the apoptotic index for MNC and lymphocytes (but not monocytes) was again significantly higher in allergic as compared to **non - allergic** subjects after 24, 48 and 72 hour of culture. In allergic patients, mean serum sFas level, was significantly lower then in **non - allergic** group (mean value 624.8 pg/ml +/- 25.67 versus 802.0 pg/ml +/- 31.91; $p = 0.003$) and in both groups sFas level correlated inversely with apoptosis of MNC. The mean ICE/caspase-1 concentration was significantly higher in sera of allergic patients as compared to **non - allergic** group (mean value 27.71 pg/ml +/- 3.79 vs 23.54 pg/ml respectively; $p<0.01$). ICE/caspase-1 levels in allergic patients correlated with apoptotic index of mononuclear cells ($r = 0.57$; $p<0.001$). CONCLUSIONS: An increased spontaneous and mitogen-induced apoptosis of MNC from peripheral blood of atopic patients as well as different serum levels of sFas and ICE/caspase-1 correlating with

apoptosis, suggest different regulation of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**
Record Date Created: 20021024
Record Date Completed: 20030304

Increased apoptosis of peripheral blood mononuclear cells in patients with perennial allergic asthma/ rhinitis **: relation to serum markers of apoptosis.**
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... of apoptotic process in peripheral blood mononuclear cells of patients with allergic asthma and/or **rhinitis.**
Descriptors: *Apoptosis; *Asthma--blood--BL; *Leukocytes, Mononuclear --physiology--PH; * **Rhinitis** , Allergic, Seasonal--blood--BL...; A --pharmacology--PD; Flow Cytometry; Humans; Middle Aged; Research Support, Non-U.S. Gov't; **Tumor Necrosis** 0 Factor-alpha--analysis--AN
Chemical Name: Antigens, CD95; **Tumor Necrosis** Factor-alpha; Concanavalin A; Caspase 1

7/7,K/19 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13696892 PMID: 11940073
Cytokine pattern in allergic and non - allergic **chronic rhinosinusitis in asthmatic children.**
Riccio A M; Tosca M A; Cosentino C; Pallestrini E; Ameli F; Canonica G W; Ciprandi G
Allergy and Respiratory Diseases, Department of Internal Medicine, University of Genoa, Genoa, Italy.
Clinical and experimental allergy - journal of the British Society for Allergy and Clinical Immunology (England) Mar 2002, 32 (3) p422-6, ISSN 0954-7894--Print Journal Code: 8906443
Publishing Model Print
Document type: Evaluation Studies; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
BACKGROUND: Rhinosinusitis represents one of the most common chronic diseases. The association of rhinosinusitis with asthma has been frequently

reported. Eosinophils and Th2 cells play a pathogenic mechanism in asthma. OBJECTIVE: The aims of the study were to evaluate the cytokine pattern in chronic rhinosinusitis in asthmatic children and to compare the findings in allergic vs. **non - allergic** asthmatics. METHODS: Thirty-five asthmatic children were evaluated, 19 males and 16 females, with an average age of 8.7 years. All children were asthmatic and suffered from chronic rhinosinusitis. Twenty were allergic and 15 were **non - allergic** . Ten healthy children were studied as normal controls. Evaluated parameters were the levels of the following cytokines: IL-1beta, IL-4, IL-6, IL-8, IL-12, IFN-gamma and **TNF** -alpha. Cytokines were recovered from rhinosinusal lavage and measured by immunoassays. Nasal cytology was also performed in all subjects and inflammatory cells were counted by conventional staining. RESULTS: Allergic subjects showed a significant increase of IL-4 ($P < 0.01$) and **TNF** -alpha ($P < 0.05$) and a significant decrease of IL-12 ($P < 0.05$) and of IFN-gamma ($P < 0.0001$), whereas IL-1beta, IL-6 and IL-8 were not significantly increased. **Non - allergic** children showed a significant increase of IL-4 ($P < 0.05$) and a significant decrease of IFN-gamma ($P < 0.0001$), IL-12 was not significantly decreased, and IL-1beta, IL-6 and IL-8 were not significantly increased. A significant inflammatory infiltrate was present in all asthmatic children. Significant correlations were demonstrated between IL-4 and IL-12 ($P < 0.001$), IL-12 and IFN-gamma ($P < 0.001$), IL-8 and neutrophils ($P < 0.01$), and **TNF** -alpha and monocytes/macrophages ($P < 0.05$), in allergic asthmatics. IL-4 and IL-12 were significantly correlated ($P < 0.05$) as well as IL-8 and neutrophils ($P < 0.01$) in **non - allergic** asthmatics. CONCLUSION: This study shows that allergic asthmatic children with chronic rhinosinusitis have a typical Th2 cytokine pattern, but also **non** - 1allergic asthmatic children share a similar pattern. These findings would suggest the existence of a common pathophysiological mechanism shared by upper and lower airways and are consistent with the concept of united airways disease.

Record Date Created: 20020409

Record Date Completed: 20020919

Cytokine pattern in allergic and non - allergic **chronic rhinosinusitis in asthmatic children.**

...pattern in chronic rhinosinusitis in asthmatic children and to compare the findings in allergic vs. **non - allergic** asthmatics. METHODS: Thirty-five asthmatic children were evaluated, 19 males and 16 females, with an...

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...correlated ($P < 0.05$) as well as IL-8 and neutrophils ($P < 0.01$) in **non**

- **allergic** asthmatics. CONCLUSION: This study shows that allergic asthmatic children with chronic rhinosinusitis have a typical Th2 cytokine pattern, but also **non - allergic** asthmatic children share a similar pattern. These findings would suggest the existence of a common...

Descriptors: *Asthma--complications--CO; *Asthma--physiopathology--PP; *Cytokines--physiology--PH; * **Rhinitis** --complications--CO; * **Rhinitis** --physiopathology--PP; *Sinusitis--complications--CO; *Sinusitis--physiopathology--PP

7/7,K/20 (Item 3 from file: 155)

13495012 PMID: 11737045

Expression of C-C chemokine TARC in human nasal mucosa and its regulation by cytokines.

Terada N; Nomura T; Kim W J; Otsuka Y; Takahashi R; Kishi H; Yamashita T; Sugawara N; Fukuda S; Ikeda-Ito T; Konno A

Department of Otorhinolaryngology, School of Medicine, Chiba University, Chiba, Japan. terada@med.m.chiba-u.ac.jp

Clinical and experimental allergy - journal of the British Society for Allergy and Clinical Immunology (England) Dec 2001, 31 (12) p1923-31, ISSN 0954-7894--Print Journal Code: 8906443

Publishing Model Print; Comment in Clin Exp Allergy. 2001 Dec;31(12) 1809-12; Comment in PMID 11737030

Document type: Evaluation Studies; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

BACKGROUND: Although interleukin (IL)-4 and IL-5 have been demonstrated to play a critical role in the pathophysiology of allergic diseases such as allergic **rhinitis** , the mechanism that causes the predominance of Th2 lymphocytes has yet to be clarified. Thymus and activation-regulated chemokine (TARC) has been known to facilitate the recruitment, activation and development of Th2 polarized cells, leading investigators to suggest a role for TARC in the development of Th2 responses. OBJECTIVE: To gain a better understanding of the role of TARC in the pathogenesis of allergic **rhinitis** we investigated the cellular sources of this chemokine in nasal mucosa. In addition, the effect of cytokines on TARC production has been investigated. METHODS: The expression of TARC in human nasal mucosa was assessed by immunohistochemistry. To study the effect of cytokines on TARC production, epithelial cells, endothelial cells and fibroblasts, isolated from inferior nasal mucosa samples, were stimulated by a variety of cytokines including IL-4, IL-13, **tumour necrosis** factor (**TNF**)-alpha and interferon (IFN)-gamma. RESULTS: Epithelial cells in nasal mucosa in subjects with allergic **rhinitis** expressed higher signal level than those in non-allergy patients. Combined stimulation with IL-4 and **TNF** -alpha, as well as IL-13 and **TNF** -alpha, synergistically induced TARC expression in epithelial cells. Furthermore, the amount of TARC induced by these cytokines was higher in epithelial cells obtained from patients with allergic **rhinitis** than in those from **non - allergic** patients. CONCLUSION: These results demonstrate a crucial role of nasal epithelial cells in the expression of TARC, and that Th2 cytokine IL-4 and IL-13 may promote Th2 responses by inducing TARC production from epithelial cells.

Record Date Created: 20011212

Record Date Completed: 20020306

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...; DE; Epithelial Cells--metabolism--ME; Humans; Nasal Mucosa--drug effects--DE; RNA, Messenger--metabolism--ME; **Rhinitis** , Allergic, Perennial--metabolism--ME; **Tumor Necrosis** Factor-alpha--administration and dosage--AD; **Tumor Necrosis** Factor-alpha--biosynthesis--BI

Chemical Name: CCL17 protein, human; Chemokines, CC; Cytokines; RNA, Messenger; **Tumor Necrosis** Factor-alpha

7/7,K/21 (Item 4 from file: 155)

11390823 PMID: 9212861

The pharmacological basis for the treatment of perennial allergic rhinitis and non - allergic rhinitis with topical corticosteroids.

Meltzer E O

Allergy and Asthma Medical Group and Research Center, San Diego, CA 92123 USA.

Allergy (DENMARK) 1997, 52 (36 Suppl) p33-40, ISSN 0105-4538--Print Journal Code: 7804028

Publishing Model Print

Document type: Journal Article; Review

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

The currently available respiratory topical corticosteroids are all effective at reducing the nasal symptoms of itch, sneezing, rhinorrhoea and obstruction associated with allergic **rhinitis** . The mechanism of action of corticosteroids is related to their anti-inflammatory activities. They have been documented to prevent fluid exudation and reduce the number of circulating inflammatory cells, including lymphocytes, mast cells, basophils, eosinophils, macrophages, and neutrophils. This occurs through multiple mechanisms, e.g. eosinophil infiltration is suppressed by preventing cytokine production, reducing local mechanisms of tissue infiltration, and decreasing eosinophil survival. Furthermore, corticosteroids also reduce preformed and newly-generated mediators (e.g. histamine, tryptase, prostanoids, leukotrienes), and inhibit production of cytokines and chemokines by inflammatory cells (e.g. IL-1 through IL-6, IL-8, RANTES, **TNF** -alpha, IFN-gamma and GM-CSF). The currently available corticosteroids differ pharmacologically. Fluticasone propionate appears to have the greatest affinity for the glucocorticoid receptor, and binds more quickly and dissociates more slowly from the receptor compared with other corticosteroids, suggesting a more prolonged duration of action. Its increased specificity for respiratory tissue may lead to greater potency

with less potential for systemic adverse effects. Fluticasone propionate has been compared with other corticosteroids in animal models for relative topical and systemic potency, and according to these data, it has the most favourable risk-benefit ratio. (65 Refs.)
Record Date Created: 19970924
Record Date Completed: 19970924

The pharmacological basis for the treatment of perennial allergic rhinitis and non - allergic rhinitis with topical corticosteroids.
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Descriptors: *Adrenal Cortex Hormones--pharmacology--PD; * **Rhinitis** --drug therapy--DT; * **Rhinitis** , Allergic, Perennial--drug therapy--DT

7/7,K/22 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10247856 PMID: 7989575
A common cold virus, rhinovirus 16, potentiates airway inflammation after segmental antigen bronchoprovocation in allergic subjects.
Calhoun W J; Dick E C; Schwartz L B; Busse W W
Department of Medicine, University of Wisconsin, Madison 53706.
Journal of clinical investigation (UNITED STATES) Dec 1994, 94 (6) p2200-8, ISSN 0021-9738--Print Journal Code: 7802877
Contract/Grant No.: AI-026609; AI; NIAID; HL-44098; HL; NHLBI; R08-01828; PHS
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Many patients with asthma have increased wheezing with colds. We hypothesized that rhinovirus colds might increase asthma by augmenting airway allergic responses (histamine release and eosinophil influx) after antigen challenge. Seven allergic **rhinitis** patients and five normal volunteers were infected with rhinovirus type 16 (RV16) and evaluated by segmental bronchoprovocation and bronchoalveolar lavage. Segmental challenge with saline and antigen was performed 1 mo before infection, during the acute infection, and 1 mo after infection. Lavage was performed immediately and 48 h after antigen challenge. Data were analyzed by two-way analysis of variance, and a P value of < or = 0.05 was considered to be significant. All volunteers inoculated with RV16 developed an acute respiratory infection. BAL fluid obtained from allergic **rhinitis** subjects during the acute viral infection, and 1 mo after infection, showed the following significant RV16-associated changes after antigen challenge: (a) an enhanced release of histamine immediately after local antigen challenge; (b) persistent histamine leak 48 h afterwards; and (c) a greater recruitment of eosinophils to the airway 48 h after challenge. These changes were not seen in **non - allergic** volunteers infected with RV16 and challenged with antigen, nor in allergic volunteers repetitively challenged with antigen but not infected with RV16, nor in RV16 infected allergic volunteers sham challenged with saline. We conclude that rhinovirus upper

respiratory infection significantly augments immediate and late allergic responses in the airways of allergic individuals after local antigen challenge. These data suggest that one mechanism of increased asthma during a cold is an accentuation of allergic responses in the airway which may then contribute to bronchial inflammation.
Record Date Created: 19950106
Record Date Completed: 19950106
... by augmenting airway allergic responses (histamine release and eosinophil influx) after antigen challenge. Seven allergic **rhinitis** patients and five normal volunteers were infected with rhinovirus type 16 (RV16) and evaluated by...

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Descriptors: *Bronchi--immunology--IM; *Common Cold--immunology--IM; *Hypersensitivity--immunology--IM; * **Rhinitis** , Allergic, Seasonal --immunology--IM; *Rhinovirus--immunology--IM...; Proteins--immunology--IM; Pollen--immunology--IM; Research Support, U.S. Gov't, P.H.S.; **Rhinitis** , Allergic, Seasonal--etiology--ET; Time Factors; **Tumor Necrosis** Factor-alpha--analysis--AN
Chemical Name: Plant Proteins; **Tumor Necrosis** Factor-alpha; Histamine ; Peptide Hydrolases; tosylarginine methyl ester hydrolase
? ds

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S1       4474   CHRONIC()SINUSI?
S2     443775   PHOSPHODIESTER? OR PHOSPHATASE OR PHOSPHODIE?
S3          7   S1 AND S2
S4          0   NON()ALLERGIC RHINITIS
S5        921   NON()ALLERGIC AND RHINITIS
S6     367152   TNF OR TUMOR()NECROS? OR TUMOUR()NECRO?
S7         22   S5 AND S6
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               $8.20  4 Type(s) in Format  7
               $0.48  3 Type(s) in Format 95 (KWIC)
            $8.68  7 Types
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    $93.52  Estimated cost File34
            $3.22    0.137 DialUnits File434
     $3.22  Estimated cost File434
            $3.82    0.434 DialUnits File71
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    $10.12  Estimated cost File71
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               $0.10  2 Type(s) in Format 95 (KWIC)
            $1.20  7 Types
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   $128.96  Estimated cost this search
   $129.51  Estimated total session cost   4.227 DialUnits

Logoff: level 05.11.05 D  13:35:36

You are now logged off
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